Candidate Conservation Agreement for Slickspot Peppergrass (*Lepidium papilliferum*)

CANDIDATE CONSERVATION AGREEMENT

FOR

SLICKSPOT PEPPERGRASS

(*LEPIDIUM PAPILLIFERUM*)

DECEMBER 5, 2003

Table of Contents

List of Maps

List of Figures

List of Tables

CANDIDATE CONSERVATION AGREEMENT between the Bureau of Land Management, the State of Idaho, Idaho National Guard and Nongovernmental Cooperators for *Lepidium Papilliferum* (Slickspot Peppergrass)

This Candidate Conservation Agreement (CCA) has been developed to expedite implementation of conservation measures for slickspot peppergrass in Idaho as a collaborative and cooperative effort among resource agencies and nongovernmental cooperators. Threats that warrant listing slickspot peppergrass as a candidate species and potentially as a threatened or endangered species under the Endangered Species Act (ESA) of 1973 as amended, should be significantly reduced, mitigated or eliminated through implementation of this CCA. This CCA will provide additional measures to enhance slickspot peppergrass occurrences and habitat that cannot be accomplished or required under the ESA.

This CCA, effective and binding on the date of the last signature below, is between the United States Bureau of Land Management (BLM) and the State of Idaho, by and through the Governor's Office of Species Conservation and the Idaho National Guard and nongovernmental cooperators, by and through their representatives, together known as the Parties:

Cooperators:

James Caswell
Administrator
Office of Species Conservation

Steve Huffaker
Director
Idaho Department of Fish & Game

Winston Wiggins
Director
Idaho Department of Lands

Major General John Kane
Adjutant General
Idaho National Guard

Ted Hoffman
Nongovernmental Cooperator Representative

Robert Baker
Nongovernmental Cooperator Representative

Bureau:

K Lynn Bennett
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1. Authority, Purpose, Goals and Objectives

Cooperators:

Office of Species Conservation: Title 67, section 818 of the Idaho Code allows the Governor's Office of Species Conservation (OSC) to negotiate agreements with federal agencies concerning endangered species, threatened species and candidate species. OSC is also responsible for coordinating the efforts of all state departments and divisions with duties and responsibilities affecting endangered species, threatened species and species to be listed.

Idaho Department of Fish and Game: Title 18, section 3913 of the Idaho Code grants authority for protecting plants to the Department of Fish and Game. The Idaho Conservation Data Center (CDC) is a program within the department that tracks and maintains information on the distribution and abundance of plants like *Lepidium papilliferum.*

Idaho Department of Lands: The department is charged with the responsibility of managing state lands that fall under this and subsequent agreements concerning *Lepidium papilliferum.* As the principle land manager in the State of Idaho, the department is required to manage this land as directed by the Idaho Constitution.

Idaho National Guard: The Idaho National Guard (IDARNG) will implement the conservation measures set forth in this CCA under the 2004-2008 Gowen Field/Orchard Training Area Integrated Natural Resource Management Plan (INRMP) as required by law under the Sikes Act. See 16 U.S.C. § 670 *et seq.* Department of the Army Regulation (AR)200-3 sets forth policy, procedures, and responsibilities for the conservation, management, and restoration of land and natural resources consistent with the military mission and in consonance with national policies. In fulfilling its conservation responsibilities under the National Environmental Policy Act and Endangered Species Act this regulation directs personnel to work closely and cooperatively with the federal agencies charged with enforcement of these acts. Army Regulation 200-3 paragraph 11-4 encourages installations to develop management plans for candidate species and to participate in conservation agreements with the Fish and Wildlife Service.

Bureau of Land Management: Section 2 of the Endangered Species Act (ESA) of 1973, as amended, allows BLM to enter into this CCA. Section 2 of the ESA states that encouraging interested parties, through federal financial assistance and a system of incentives, to develop and maintain conservation programs is a key to safeguarding the Nation's heritage in fish, wildlife, and plants. The Federal Land Policy and Management Act (FLPMA, Sec. 307, 43 USC 1737) which provides overall direction to the Bureau of Land Management for conservation and management of the public

lands, also allows the agency to participate in conservation agreements. The BLM manual, section 6840 (Special Status Species Management) provides overall policy direction to BLM managers to conserve listed threatened or endangered species on BLM administered lands, and to ensure actions authorized on BLM administered lands do not contribute to the need to list federal, candidate, state-listed or BLM sensitive species.

The **purpose** of this CCA is to join the BLM, State of Idaho and Idaho Army National Guard, with nongovernmental cooperators to implement conservation measures for slickspot peppergrass. The FWS has encouraged the formation of partnerships to conserve candidate species and this CCA is such a partnership by the BLM, State of Idaho, IDARNG, and nongovernmental cooperators, which under section 4 of the ESA the Secretary must consider in the listing determination. This CCA should not be confused with a Candidate Conservation Agreement with Assurances (CCAA) which is associated with section 10 of the ESA. Instead this is a formal agreement to address the conservation needs of a candidate species by reducing, mitigating, and eliminating the threats facing the plant, thus precluding the need to list the species.

The **goal** of the CCA is to conserve the species and its habitat while protecting the long-term sustainability of predicable levels of land use in southern Idaho. The **objectives** of this agreement are to:

- *Maintain and enhance slickspot peppergrass habitat.*
- *Reduce intensity, frequency, and size of natural and human caused fires.*
- *Minimize loss of habitat associated with fire suppression activities.*
- *Reduce the potential for invasion of nonnative plant species from wildfire.*
- *Minimize the loss of habitat associated with rehabilitation and restoration techniques and efforts.*
- *Minimize the establishment of invasive nonnative plant species.*
- *Minimize or eliminate the degradation and loss of habitat associated with off highway motorized vehicles.*
- *Mitigate the negative effects of military training and other activities.*
- *Minimize the impact of ground disturbance caused by livestock penetrating trampling of slickspots during periods when soils are saturated.*

Conservation measures were developed to accomplish the stated objectives and goal. *See infra* p. 21.

2. Policy for Evaluation of Conservation Efforts

The Policy for Evaluation of Conservation Efforts (PECE) applies to conservation agreements developed by federal agencies, states, and individuals and provides direction "to Service personnel in determining how to consider a conservation agreement when making a decision on whether a species warrants listing." *See* US FISH AND WILDLIFE SERVICE, PECE: POLICY FOR EVALUATION OF CONSERVATION EFFORTS WHEN MAKING LISTING DECISIONS 1 (2002). This CCA was developed with the technical advice of the FWS to better understand PECE and its requirements.

PECE identifies criteria the FWS will use in determining whether formal conservation efforts that have yet to be implemented or to demonstrate effectiveness can preclude the need to list a species as threatened or endangered. The criteria under PECE are the certainty that the conservation efforts will be implemented and the certainty that the efforts will be effective.

Certainty of Implementation

The FWS, in evaluating the certainty of implementation under PECE, will consider whether a high level of certainty exists that the resources necessary to carry out the conservation measures are available; whether the parties to the CCA have the authority to carry it out; whether regulatory or procedural mechanisms are in place to carry out the agreement; whether there is a schedule for completing and evaluating the conservation measures; and if there is reliance on voluntary participation what incentives exist to ensure continued participation.

The primary resource necessary to carry out this CCA is funding. Of the 207 Management Area conservation measures, 132 are funded through BLM or state base funding, will have no additional cost associated with it, or will be funded by a seasonal user/permit holder. Of the remaining conservation measures, specifically those concerning BLM, the agency requested funding through the agency's out year programming process.

Each signatory to this agreement, by design, possesses the authority to negotiate and implement the provisions of the CCA. *See supra* pp. 2–3.

The CCA utilizes existing BLM, Idaho Army National Guard, and state regulatory or procedural mechanisms to ensure the conservation measure will be implemented. For example, The Bureau of Land Management has several regulatory mechanisms available to facilitate certainty in implementation of the conservation measures identified in this agreement for which BLM is the responsible party (*see* **Table 2**: Implementation Schedule for Conservation Measures). These include Instruction Bulletins, Instruction Memorandums, Handbooks, Manuals, Resource Management Plans, grazing permits, and various land use authorizations such as right of way authorizations and organized recreation permits. *See* discussion *infra* pp 22-23. The State of Idaho has similar procedural mechanisms for dealing with state land as incorporated under this agreement. The IDARNG, is required by law to develop and implement an Integrated Natural Resource Management Plan that will provide the legal framework necessary for carrying out the conservation measures it is responsible for.

A schedule for completing the conservation measures can be found in **Table 2.** *See infra* p. 68. Evaluating the success of the conservation measures will proceed according to the **effectiveness monitoring** component of the CCA in **Table 5.** *See infra* p. 124.

This CCA is significant because it goes beyond the federal lands, which would be covered through the listing decision under the ESA, to include state land within the management areas and private land, which would not be covered under the ESA. Private landowners (where specifically mentioned within a management area) have volunteered specific pieces of their private land for incorporation under the terms of this agreement. State land within the management areas, are incorporated under the provisions of this CCA and are protected with specific conservation measures that the State of Idaho, through the Department of Lands, will implement. The incentives for undertaking these commitments were the ability to work closely with other cooperators during the development of the CCA and the chance to participate in a historical effort in Idaho that could potentially preclude the need to list a species.

Certainty of Effectiveness

The FWS, in evaluating the certainty that conservation measures will be effective, will consider whether the effort describes the nature and extent of the threats to the species and how these threats are reduced by the CCA; whether the CCA establishes specific conservation objectives; whether the CCA identifies the appropriate steps to reduce threats to the species; and whether the CCA includes quantifiable performance measures to monitor compliance and effectiveness. Unlike the former criterion, this part of the PECE analysis depends on species-specific, habitat-specific, location-specific, and effort-specific factors. The FWS will consider all appropriate factors in evaluating formalized conservation efforts, including specific circumstances, which will also determine the amount of information necessary to satisfy the certainty of effectiveness criterion.

Many questions surrounding slickspot peppergrass remain unanswered and opinions seem to vary about the plant, as evidenced by the United States Air Force's Data Quality Act complaint and the FWS's decision to delay the listing decision for six months to review conflicting information and data. Under PECE the FWS must recognize this as a specific circumstance that impacts the amount of information available to BLM and the cooperators when it determines the certainty of effectiveness. Part of the benefit of this CCA is the commitment of the implementers to engage in effectiveness monitoring and adaptive management to develop data to resolve some of the issues surrounding the species.

The nature and extent of the threats, as presented by the FWS, are documented in **Table 1** beginning on page 18.

The CCA establishes specific conservation objectives in the previous section on page 3.

The appropriate steps to reduce, mitigate, and eliminate the threats to the species are the conservation measures for the LEPA Consideration Zone, the Management Areas, and specific Priority Element Occurrences beginning on page 21.

Compliance and effectiveness monitoring will be conducted under the CCA in accordance with the adaptive management section beginning on page 109.

3. Acknowledgements

State of Idaho

The State of Idaho recognizes this effort as a unique opportunity. Unique, because it allows us to proactively address the needs of a species before it is listed as threatened or endangered under the ESA. Unique, because it allows us to help unite opposing perspectives in a common objective to conserve a species and maintain a predictable level of land use in our great state. Unique, because it also demonstrates our collective ability to marshal resources at the private, state, and federal levels for a species not listed under the ESA. Moreover, this is truly a unique opportunity because portions of private and state land have been voluntarily incorporated into this agreement and will continue to be offered for the conservation of slickspot peppergrass. Without this commitment the plant would have little or no protection on private or state land.

Idaho has endeavored to learn more about the species as evidenced by the Department of Agriculture's study examining the effects of grazing treatments on the plant's density and vigor, slickspot integrity and soil disturbance, bulk density and permeability. This study will establish whether livestock trampling affects the species and its habitat, which will assist in making management decisions throughout the plant's range. Further evidence of this commitment is demonstrated by the Department of Fish and Game's Conservation Data Center (CDC) which has and will continue to track and maintain information on the distribution and abundance of slickspot peppergrass and other plants in Idaho.

The State of Idaho has played a large part in this effort through the leadership of the Governor's Office of Species Conservation (OSC) and will continue its role by and through the Department of Lands implementing conservation measures designed to reduce or eliminate the impacts to the species, the Department of Fish and Game monitoring the species, and the Department of Agriculture researching the needs and impacts to the plant and the health of Idaho's rangeland. The technical expertise and leadership of the state, on behalf of the people of Idaho, are dedicated to preserving *Lepidium papilliferum*, its habitat and sustainable, predicable levels of land use.

Idaho Army National Guard

The Idaho Army National Guard (IDARNG) has a duel mission. The first is to maintain a trained military force ready to support the national security strategy at home and overseas. The second is to maintain a trained and ready force to react to missions supporting state and local authorities in the event of civil disturbance, terrorist activities, and natural disasters. Our ability to undertake these missions is dependent on having a readily available area that enables us to maintain our gunnery and maneuver skills at a standard that will allow us to deploy rapidly, survive, and achieve victory in hostile environments anywhere in the world.

The IDARNG is mandated by public law as well as Department of Defense and National Guard Bureau regulations to maintain a proactive conservation program. This program is formalized in the

Integrated Natural Resources Management Plan. We are committed to be good stewards of the lands we train on to ensure that we have that valuable resource available to us for years to come.

In 1991 the IDARNG identified *Lepidium papilliferum* population centers in Orchard Training Area and placed them off-limits to military training. Life history, demography, seed biology, reproductive strategy, habitat integrity, soils, and pollination strategy were studied. These were areas where little or no scientific information was available. Several interim reports were produced during IDARNG research, which was initially funded by Department of Defense Legacy grants and later supported by the IDARNG and the U.S. Forest Service (Meyer 1993, Meyer and Quinney 1993, Meyer 1996, Meyer *et al.* 2002). The research documented many facts new to science regarding *Lepidium papilliferum's* life history, seed biology, reproductive strategies and habitat relationships.

The IDARNG has a sound, science-based management policy that has been in place for over 10 years. The IDARNG's *Lepidium papilliferum* management policy was designed to prevent damage to and fragmentation of the large sagebrush stand (approximately 23 square miles) in which *Lepidium papilliferum* occurs on Orchard Training Area; to prevent any military disturbance of the *Lepidium papilliferum* population centers and to maintain these off-limit areas into the future; and to monitor both general vegetation trends and *Lepidium papilliferum* population trends into the future. The IDARNG is committed to preventing destruction of *Lepidium papilliferum's* sagebrush habitat by fire. The IDARNG's firefighting policy protects big sagebrush habitat from fire by actively posting trained firefighters and equipment at possible fire sources 24 hours a day, if necessary, throughout the fire season, and stopping military exercises at once to suppress fires. The IDARNG has not lost any *Lepidium papilliferum* plants or habitat to military training or fire since it began monitoring the species in 1991.

Nongovernmental Cooperators

The proposed LEPA listing placed local landowners and grazing permittees and other resource users in a no-win situation: engage in expensive long-term litigation or submit to expensive long-term regulation. Through discussions with the Office of Species Conservation, the possibility of investing in conservation over litigation and regulation arose. We offered assets the United States Fish and Wildlife Service (FWS) could not acquire for *Lepidium papilliferum* (LEPA)—inclusion of our lands and leases, our knowledge of the range, and our willing cooperation—in return for a seat at the table.

We asked for other affected agencies to join the plan—the state BLM and the Idaho Army National Guard Training Range and the United States Air Force. We asked the FWS to advise our group as the agreement was written.

We will focus on collaborative research and consequent adaptive management changes based on science. We will ignore yesterday's ideology and enemies and seek joint answers for today's questions. Where we start is not as important as that we do start and that we have a sound collaborative research and adaptive management plan that will ultimately bring us together to the answers to the questions about LEPA's status and conservation needs.

Some may read this CCA and think the land use restrictions are irrelevant to the plant's survival. They might be right, but this agreement must accommodate those who do think the restrictions are needed. Some other people may think that some measures are not adequately restrictive. And they may be right, but this group also needs to accommodate those whose land uses and livelihoods are affected by this process.

This is a balanced agreement. It should be evaluated not by its individual details, but by our balanced direction and process. If we can join botanists' and biologists' theoretical knowledge with land managers' pragmatic skills and the ranchers' experience and observations, we will have provided for LEPA a unique conservation effort, one with far greater certainty and effectiveness than ESA activities typically have shown, one which the grizzly and the salmon would have reason to envy.

Bureau of Land Management

BLM's responsibilities under the Endangered Species Act are to ensure, to the extent possible, conservation and restoration of species habitat. Sometimes those responsibilities conflict with other critical mandates and require substantial changes to activities and authorizations that have historically been appropriate and acceptable on public lands. At the same time, BLM manages public lands under the principles of multiple use. Those principles include recognition of the importance of sustaining various traditional uses of public lands, such as livestock grazing and dispersed recreation, supporting economic viability of communities that depend on public lands, and allowing continued military training in the Orchard Training Area. BLM recognizes that there have been changes resulting in degradation of *Lepidium papilliferum* habitat within the sagebrush-steppe ecosystem. At the same time, BLM acknowledges that there is controversy and debate regarding both the specific factors that have lead to that degradation and the strategies that might be employed to halt and reverse that degradation trend. Determining appropriate solutions given the debate about cause and effect as well as the various agency mandates can be challenging.

Given these challenges, as well as BLM's recognized fundamental role in protecting and restoring *Lepidium papilliferum* habitat, the State Director was very interested in joining the private landowners and State of Idaho in development of a conservation agreement with the Fish and Wildlife Service. An agreement, voluntarily signed by all parties who could contribute to conservation of the species and its habitat, would be a far better solution than awaiting an ESA listing decision and reacting to it. Such an agreement would be more pro-active, helping BLM be more immediately effective in implementing conservation measures on public lands that address potential threats to the species and its habitat. Where there is debate regarding the cause/effect relationship, BLM believes the adaptive management approach of the conservation agreement will provide an opportunity for monitoring and, when appropriate, research. In summary, BLM believes that there was no question that it made sense to join the State and private landowners (called nongovernmental cooperators) in working with the Fish and Wildlife Service to collaboratively craft a set of workable conservation measures. While the conservation agreement crafted through this collaborative effort may, and undoubtedly will, be improved through public review and comment, this draft represents an unprecedented effort to cooperatively develop solutions in spite of different perspectives, experiences, values and mandates. Participation in such an effort helps BLM

achieve its multiple mandates and embodies the Secretary of Interiors commitment to "the Four C's: communication, cooperation and coordination all in the service of conservation."

4. Definitions

Cooperator- A federal, state, county or city entity that has the expertise and capacity to implement this agreement.

Element Occurrence (EO)- Represents a specific geographical location containing the species.

Federal land- Any land under the jurisdiction of the BLM. Department of Defense land is specifically excluded from this definition.

***L. papilliferum* or *Lepidium papilliferum* or LEPA**- The species commonly known as slickspot peppergrass (used interchangeably).

Management Area- A series of existing element occurrences that are found within the same general vicinity of each other and have similar management issues or administrative boundaries.

Moist Soils-Walking livestock will leave a visible track in the soil on most steps and the soil will clump into a ball when pressed in the hand.

Nonfederal land- Land owned by the state, a county, city, or private individual.

Nongovernmental Cooperator (NGC)- A permittee or private landowner who is able to implement the provisions of this agreement on their federal or state allotment or private land within or adjacent to a management area.

Nonnative- A species that historically did not occur in a specific area or habitat and now does.

Occupied Habitat-Consists of sites where *Lepidium papilliferum* has been physically observed and recorded through the State of Idaho Conservation Data Center currently or in recent history.

Penetrating Trampling-breaking of the restrictive layer underneath the silt surface area during saturated conditions exposing the clay layer of a slickspot.

Saturated Soils-soil that can absorb no additional water, causing water is to pool or stand on the surface.

Suitable habitat -Suitable *Lepidium* habitat is arid potential sagebrush-steppe vegetation interspersed with small mini-playas (slickspots).

Slickspot- Microsite with poor water infiltration and a high near-surface distribution of soluble sodium salts, and distinct soil layers (a surface silt layer, a restrictive hardpan layer, and a clay layer) that differ from surrounding soils within the sagebrush ecosystem.

5. Background

The following is a summary of the best available information concerning slickspot peppergrass as presented by the FWS. Uncertainty exists regarding this information, as demonstrated by the Air Force's Data Quality Act complaint.

Biological Overview of Lepidium papilliferum

Lepidium papilliferum is a herbaceous annual or biennial plant that occurs exclusively in sagebrush (Artemisia spp.)-steppe habitats at approximately 2,200 feet (ft) (670 meters (m)) to 5,400 ft (1,645 m) elevation in southwestern Idaho. *See* **Map** at 147 . This Idaho endemic species is found along the Snake River Plain and Owyhee Plateau in Ada, Canyon, Gem, Elmore, Payette, and Owyhee Counties.

Survey History

Lepidium papilliferum was first collected in 1892 near Nampa, and again from the same area by Louis Henderson in 1897 (Moseley 1994). Several collections were made during the first half of the 20th century. References vary as to location; however, collections were taken generally from areas within the western Snake River Plain and Payette Valley. Collections were not made during the 1950's through the 1970's and it was thought to be extinct by Hitchcock and Cronquist (1973). A few sporadic collections were made during the 1970's and early 1980's (Steele 1981). Concern for the health of the sagebrush-steppe ecosystem of the western Snake River Plain and dependent species such as *L. papilliferum* led to increased survey efforts beginning in 1989 and continuing to present day (Moseley 1994).

Systematics

Lepidium papilliferum was originally described as *L. montanum var. papilliferum* in 1900 by Louis Henderson. It was included as a distinct species in a recent review of taxa in the mustard family (Brassicaceae) (Rollins 1993). Rollins (1993) based his justification on difference in physical features between the two species such as: (1) *L. papilliferum* has trichomes (hairlike structures) occurring on the filaments of stamens (part of flower that produces pollen), but *L. montanum* does not; (2) all the leaves on *L. papilliferum* are pinnately divided, whereas *L. montanum* has some leaves that are not divided; (3) the shape of the silique (seed capsule) of *L. papilliferum* is different from that of *L. montanum*; and (4) the silique of *L. papilliferum* has no wings, or even vestiges of wings, at its apex (end of the capsule), unlike that of *L. montanum* (Moseley 1994). A recent review of the taxonomic status by R. Lichvar (in litt. 2002) concluded that, using classic morphological features and study of herbarium specimens, *L. papilliferum* has distinct features that may warrant species recognition. Also Meyer et al. (in press) concluded that the ecological and life history features of *L. papilliferum* are distinct from those of *L. montanum*.

Life History Traits

Lepidium papilliferum is a taprooted annual or biennial plant that reaches 4 to 12 inches (in) (10 to 30 centimeters (cm)) in height (Moseley 1994). The species is a monocarpic plant that displays two

life cycle types. The annual life form matures, reproduces by setting seed, and dies in one growing season, whereas the biennial life form initiates growth in the first year, and does not produce seed and die until the second year. The plant is intricately branched above the root crown, leaves and stems are pubescent (covered with fine, soft hairs), and the divided leaves have linear segments (Moseley 1994). Numerous small, white 4-petalled flowers terminate the branches. This species produces small, orbicular (spherical) fruits, which are approximately 0.1 in (3 millimeters) long.

Lepidium papilliferum is mainly pollinated by bees (Anthophoridae, Apidae, Colletidae, Chrysididae, Formicidae, Halictidae, Sphecidae, and Vespidae families), flies (Bombyliidae, Syrphidae, and Tachinidae families), and some beetle species (Cerambycidae, Chrysomelidae, Dermestidae and Melyridae families). Limited pollination has also been observed by butterflies (Gelechiidae family), bugs (Miridae family), and thrips (Thripidae family) (Robertson 2002b). Insect visitations have been shown to be essential for *L. papilliferum* pollination and fruit production. The possibility of wind-mediated self- or cross-pollination is remote given that the structure of *L. papilliferum* flowers and pollen grains are not consistent with those of wind pollinated species (Robertson 2002b).

The primary seed dispersal mechanism for *Lepidium papilliferum* has not been definitively identified, but because *L. papilliferum* has a relatively large seed, the primary seed dispersal mechanism is probably gravity. Animal transport, water, and wind may play a minor role, but the seed lacks structures to facilitate dispersal by animals, wind, or water (Moseley 1994).

Seed germination and emergence of the basal rosette generally takes place in early spring (likely March), while some germination may also occur in the fall (Moseley 1994). In plants exhibiting an annual life cycle, flowering occurs in late April and May, and fruit is set in June. Plants having a biennial life cycle persist as rosettes their first year and flower and fruit the following year. Late winter and early spring weather patterns affecting the amount of sunshine (heat) and precipitation, affect the timing of green-up and initiation of first growth. This ultimately affects the various phenological stages, resulting in variations by as much as a month or more from year to year (Moseley 1994). *L papilliferum* does not reproduce vegetatively, with reproduction occurring only by seed. *L papilliferum* flowers rely primarily, perhaps entirely, on out crossed pollen for pollination and fruit production (Moseley 1994, Robertson 2002a and 2002b). All plants that produce seed, whether annual or biennial, die shortly after the seed is mature (Quinney 2000).

Like many short-lived plants growing in arid environments, the above-ground number of *Lepidium papilliferum* individuals at any one site naturally fluctuates widely from one year to the next, depending primarily on seasonal precipitation patterns (Mancuso and Moseley 1998; Mancuso 2001; Meyer et al., In Press). Above-ground plants represent only a portion of the population, with the seed bank (a reserve of dormant seeds, generally found in the soil) contributing the remainder, and apparently the majority, in many years (Mancuso and Moseley 1998). A seed bank includes all of the seeds in a population and generally covers a larger area than the extent of observable plants seen in a given year (Given 1994). The number and location of standing plants (the observable plants) in a population varies annually due to a number of factors, including the amount and timing of rainfall, temperature, soil conditions, and the extent and nature of the seed bank. Therefore, estimates of above-ground plants do not reflect actual population levels because the majority of the population exists in the seed bank (Moseley 1994). The extent of seed bank reserves is variable

from population to population, and large fluctuations in the number of standing plants at a given site may occur from one year to the next. Depending on individual plant vigor, which is largely determined by the amount and timing of annual precipitation, and the effectiveness of pollination, dozens, if not thousands of seeds could be produced (Quinney 1998; M. Mancuso, Idaho Conservation Data Center (ICDC), pers. comm. 2003). Individual biennial plants generally produce a much greater number of seeds than individual annual plants. Because annual plants typically are more numerous than biennial plants, the total amount of seed produced by all successfully reproducing biennial plants in any given year is low in relation to the total amount of seed produced by all annual plants in the same year. Seeds produced in a given year may remain viable for up to 12 years (D. Quinney, Idaho Army National Guard (IDARNG), in litt. 2002; Meyer et al., in press).

Maintenance of a seed bank is important for year-to-year and long-term survival of plant species, especially annual plants, which inhabit environments with variable and unpredictable annual precipitation (Baskin and Baskin 1978, 2001). Meyer et al. (in press) concluded that *Lepidium papilliferum* could not succeed with an annual life history strategy within its variable habitat without a persistent seed bank. The majority of *L. papilliferum* seeds that are contributed to the seed bank in any given year are produced by annual plants rather than biennial plants due to low survival of biennial plants in dry summer conditions (Meyer et al., in press). Generally, seeds produced in a given year do not germinate that same year, so seeds are dormant for at least a full year before any germination takes place. Following this first year, a constant proportion (approximately 6 percent) of seeds produced from a given preceding year germinate annually. However, depending on the timing and amount of annual precipitation, these young plants may or may not survive to flower and produce seed (Meyer et al., in press). Population modeling of stochastic (naturally occurring random) events for *L. papilliferum* demonstrates the importance of years with above-average precipitation in restocking the seed bank. The model indicates that if yearly annual precipitation over the long-term meets or is below average precipitation levels the population would not persist (Meyer et al., in press). Two research projects that further examine *L. papilliferum* seed banks and slickspot soils are currently being pursued by IDARNG, U.S. Forest Service Intermountain Research Station, and Air Force (Meyer et al., 2002; Air Force 2002c). Seed banks are adaptations for survival in a "risky environment," as they buffer a species from stochastic impacts such as lack of soil moisture, which could result in no seed production for a population in a given year (Baskin and Baskin 2001). The *L. papilliferum* seed bank and seed viability of up to 12 years are examples of such adaptations (Meyer et al., in press).

Habitat Features

Lepidium papilliferum occurs exclusively in semi-arid sagebrush-steppe habitats on the Snake River Plain, Owyhee Plateau, and adjacent foothills at approximately 2,200 ft (670 m) to 5,400 ft (1,645 m) elevation in southern Idaho. The sagebrush-steppe habitat represents one of the largest temperate semidesert vegetation types in North America (Miller et al. 1999). It is characterized by cold, wet winters and hot, dry summers. Native species associated with *Lepidium papilliferum* include *Artemisia tridentata ssp. wyomingensis* (Wyoming big sagebrush), *A. tridentata ssp. tridentata* (basin big sagebrush), *Agropyron spicatum* (bluebunch wheatgrass), *Stipa thurberiana* (Thurber's needlegrass), *Poa secunda* (Sandberg's bluegrass), and *Sitanion hystrix* (bottlebrush squirreltail). Nonnative species frequently associated with *L. papilliferum* include *Bromus tectorum* (cheatgrass), *Sisymbrium altissimum* (tumble mustard), *Ranunculus testiculatus* (bur buttercup), *Lepidium*

perfoliatum (clasping pepperweed), *Agropyron cristatum* (crested wheatgrass), and *Kochia prostrata* (forage kochia) (Moseley 1994; Mancuso and Moseley 1998; Meyer et al., in press).

Lepidium papilliferum is associated with small areas known as slickspots which are interspersed within the larger sagebrush-steppe habitat. Slickspots are also called mini-playas or natric sites (sites containing a subsurface horizon, characterized by a sharp increase in clay, columnar or prismatic structure and high alkalinity). Slickspots are small, natural soil inclusions that exhibit unique physical characteristics in relation to the surrounding matrix of non-natric soils. These sparsely vegetated microsites are very distinct from the surrounding shrubland vegetation; slickspots are characterized by a near-surface distribution of soluble sodium salts, thin vesicular (small cavity) surface crusts, and shallow well-developed argillic (relating to clay mineral) horizons or layers (Fisher et al. 1996) that are impermeable when wet (A. Harkness, NRCS, pers. comm. 2003). Slickspot soils are different from the deeper silt and drier soils surrounding slickspots in that slickspots have three distinct soil layers; a surface silt layer, with a restrictive hardpan layer beneath, and a clay layer that retains moisture below the restrictive layer (Quinney, pers. comm. 2003). In the winter, spring, and after thundershowers, slickspots often contain some surface water (Fisher et al. 1996; J. Klott, Bureau of Land Management (BLM), pers. comm. 2000). As the soil surface dries, the slickspot argillic soil layer contracts, creating cracks that allow roots of plants such as *L. papilliferum* to extend deep into the underlying soil (A. Harkness, pers. comm. 2003). Compared to surrounding habitat areas, the microsites also have reduced levels of organic matter and nutrients, due to the lower biomass production (Fisher et. al. 1996). The majority of slickspots range in size from less than 10 square feet (ft^2) (1 square meter (m^2)) to about 110 ft^2 (10 m^2) within communities dominated by other plants. However, some slickspot complexes may range up to 1,076 ft^2 (100 m^2) (Mancuso et al. 1998).

Lepidium papilliferum is limited to slickspots covering a relatively small cumulative area within the larger sagebrush-steppe ecosystem of southwestern Idaho. For example, Popovich (2002) analyzed survey data from 2000, 2001, and 2002 and estimated that only 1 to 4 percent of slickspots are occupied by above-ground *L. papilliferum* plants in the Inside Desert (an interior portion of the Bruneau Desert) area of southwest Idaho. A slickspot is considered to be occupied if above-ground *L. papilliferum* plants are observed during the year of survey. Slickspots that do not contain above-ground plants during surveys may contain viable seeds; therefore, several years of surveys may be necessary to determine if slickspots are occupied. *L. papilliferum* has occasionally been documented as occurring on disturbed soils such as those along graded roadsides or adjacent to animal burrows. However, these appear to be uncommon situations, and the vast majority of documented occurrences of this species are associated with slickspots. For example, in 2002, a complete census of an 11,070-acre (ac) (4,480-hectare (ha)) area recorded approximately 56,500 individual slickspots, of which approximately 2,500 (about 4 percent) were occupied by *L. papilliferum* plants. Of the approximately 11,300 *L. papilliferum* plants documented during the survey effort, only 11 plants were observed outside of slickspots. (U.S. Air Force (Air Force) 2002a). The restricted and scattered distribution of *L. papilliferum* is likely a product of (a) the limited availability of these extremely localized, specific slickspot soil conditions, (b) the fragmentation of the sagebrush-steppe ecosystem in southwestern Idaho from agricultural and urban development, and (c) the conversion to annual, nonnative grasslands.

Analysis of Existing Data

Documented Occurrences of Lepidium papilliferum

An "occurrence" (or "element occurrence") as defined by the ICDC represents a specific geographic location containing a species (or some other element) of conservation concern. It is the standard database record used throughout the Natural Heritage Program/Conservation Data Center network, of which ICDC is part. Occurrences of *Lepidium papilliferum* are comprised of one to many slickspot microsites documented to contain the plant. The area delineated by an occurrence contains slickspots known to be occupied by *L. papilliferum* interspersed within a matrix of unoccupied sagebrush-steppe habitat. Therefore, an occurrence includes slickspot habitat directly occupied by *L. papilliferum*, as well as part of the surrounding landscape not directly occupied. This results in only a small fraction of an occurrence acreage being directly occupied by *L. papilliferum* in most cases.

Occurrence boundaries are based on estimates delineating the extent of occupied *Lepidium papilliferum* habitat in an area. Occurrences may be depicted as a point (small occurrences comprised of only one or a few clustered occupied slickspots); a single polygon (occurrences comprised of occupied slickspots scattered over a more or less contiguous area); or of multiple polygons (occurrences comprised of two or more discrete areas having occupied slickspots). Occurrences range in size from less than 1 ac (0.40 ha) to 1,098 ac based on information provided by the ICDC. The total estimated area of all extant occurrences as of February 2003 was approximately 20,500 ac (8,300 ha). Of this estimated total, approximately 91 percent (18,655 ac (7,550 ha)) occurred on federal land; 3 percent (615 ac (249 ha)) on private land; and 6 percent (1,230 ac (498)) on state land); however little surveying has been done to completely substantiate this number. The largest occurrence is located on the Air Force's Juniper Butte Range. It constitutes 44 percent of the total *L. papilliferum* occurrence acreage; however, acreage comparisons are difficult to make between areas because of the difference in survey technique, time, and climatology.

In 2002, two surveys occurred on Juniper Butte Range, both inside and outside the target area (ETR). The 2002 surveys on the Juniper Butte Range documented approximately 61,382 slickspots, approximately 4% of which were occupied, for an approximate total of 2,456 slickspots occupied on the Juniper Butte Range. The total combined area of the slickspots that were occupied was determined to be approximately 109 acres of the 11,070 acre range.

The ICDC database contains a total of 93 *Lepidium papilliferum* occurrences. Of this total, 75 are extant (exist), 5 are historical, and 13 are considered extirpated. Historical occurrences are those based on collections made between 1911 and 1974, but which have not been relocated in recent years. In most cases the collections have vague location information making their relocation problematic. The historical category has an implied expectation that the occurrences may be relocated in the future. Occurrences are considered extirpated if the native vegetation has been converted to cropland or urban/commercial uses, or the habitat is so severely modified that it is no longer capable of supporting *L. papilliferum* (ICDC 2003). As of February 2003, and since publication of the proposed rule in July 2002 (67 Fed. Reg. 46441), the number of extant

occurrences has increased by 5 (from 70 to 75), as a result of recent field survey efforts. The five new *L. papilliferum* occurrences total approximately 50 ac (20 ha).

Forty-nine of the 75 extant occurrences (65 percent) are located completely on Federal land managed by the BLM or Air Force, and 6 occur completely on private land (8 percent); however little surveying has been done to completely substantiate this number. Three occurrences (4 percent) are located completely on either county or city lands. The 17 remaining occurrences (23 percent) encompass areas of multiple land ownership, representing a mixture of Federal, State, and/or private lands.

Ranking of Occurrence Quality

Sixty of the 75 extant occurrences of *Lepidium papilliferum* have been ranked by ICDC using four definitions, A through D, with A representing sites with the greatest number of above-ground plants, best quality habitat, and highest probability of long-term survivability (Moseley 1994). The number of *L. papilliferum* individuals at each extant occurrence can range from 1 to greater than 10,000 (M. Mancuso, pers. comm. 2003; ICDC 2003); however the majority (42) of the 60 ranked extant occurrences contain less than 200 individuals. The total acreage of all ranked occurrences is approximately 20,131 ac (8,147 ha). The remaining 15 of the 75 extant occurrences are not yet ranked by ICDC due to a lack of information on habitat characteristics (S. Cooke, pers. comm. 2003b). The total area of the unranked occurrences is approximately 366 ac (148 ha), with an average size of approximately 24 ac (10 ha) (ICDC 2003).

"A"-ranked occurrences, as defined by ICDC, "consist of those with large population numbers occurring in high-quality sagebrush-steppe communities. The occurrences also tend to be large in area, consisting of many slickspots spread over a contiguous area. "A"-ranked populations generally consist of populations with greater than 1,000 above-ground individuals in sagebrush stands consisting mostly of native perennials; these sites generally have not burned and do no support exotic annuals" (Moseley 1994). Of the 60 extant ranked occurrences, 7 (12 percent) are considered "high-quality" or "A"-ranked. The area of the 7 "A"-ranked occurrences is estimated to encompass approximately 6,596 ac (2,669 ha), which is 33 percent of the total area of all ranked occurrences. Approximately 4,430 ac (1,793 ha), or 67 percent, of this 6,596 ac "A"-ranked area is located within two occurrences on the IDARNG's Orchard Training Area (OTA) (ICDC 2003).

"B"-ranked occurrences, as defined by ICDC, range from "about 400 to 2,000 individuals." The 'average' occurrence of this rank consists of several hundred plants in good to high-quality sites. "B"-ranked occurrences can include sites containing 400 to 600 individual plants (low end of range) occurring in high-quality habitat and/or thousands of individuals (high end of the range) that occur in fair to low quality sites (burned-over cheatgrass stands or crested wheatgrass seedings) (Moseley 1994). Nine (15 percent) of the 60 ranked extant occurrences are "B'-ranked. The area of the 9 "B"-ranked occurrences totals approximately 10,683 ac (4,323 ha), or 53 percent of the total area of all ranked occurrences. Approximately 8,970 ac (3,630 ha) of this 10,683 ac area is located within one large occurrence on the Air Force's Juniper Butte Range. This single large occurrence was assigned a "B"-ranking (the proposed rule erroneously identified this as a "C"-ranking) as much of the habitat within this occurrence has been degraded by wildfires and subsequent seedings of crested and intermediate wheatgrass prior to the land being withdrawn for Air Force management (Air

Force 2002b; ICDC 2003). The average size of the "B"-ranked occurrences is approximately 1,187 ac (480 ha). If the single 8,970 ac (3,630 ha) occurrence is excluded from this calculation, the average size of the "B"-ranked occurrences is reduced to approximately 214 ac (87 ha) (ICDC 2003).

"C"-ranked occurrences, as defined by ICDC, "consist of as few as 25 to greater than 1,000 individuals. The 'average' "C"-ranked occurrence consists of 100 to 200 individuals in fair to low-quality habitat. The occurrences with smaller numbers of above ground plants occur in large tracts of high-quality habitat, while occurrences at the high end of the range are in severely disturbed habitats or those that are adjacent to recent developments and are not expected to remain viable (Moseley 1994). Of the 60 extant ranked occurrences, 21 (35 percent) are "C"-ranked. The total area of the 21 "C"-ranked occurrences totals approximately 731 ac (296 ha), or 3 percent of the total area of all extant ranked occurrences. The average size of the 21 "C"-ranked occurrences is approximately 35 ac (14 ha) (ICDC 2003).

"D"-ranked occurrences, as defined by ICDC, "consist of generally less than 50 individuals (often less than 25) occurring as isolated populations in degraded habitats," and are not expected to remain viable (Moseley 1994). Eighteen (30 percent) of the 60 extant ranked occurrences are "D"-ranked. The area of the 18 "D"-ranked occurrences totals approximately 1,890 ac (765 ha), or 9 percent of the area of all extant ranked occurrences, with an average size of approximately 105 ac (43 ha). The average size of the "D"-ranked occurrences is biased by a single 1,495 ac (605 ha) occurrence. The average size of the "D"-ranked occurrences is reduced to approximately 23 ac (9 ha) if this single 1,495 ac (605 ha) occurrence is excluded from the calculation of the average size of the "D"-ranked occurrences (ICDC 2003).

Five of the 60 extant ranked occurrences have been categorized by ICDC as intermediate between the four defined ranks. Four (7 percent) of the 60 extant ranked occurrences are identified as "B/C"-ranked. The area of the 4 "B/C"-ranked occurrences totals approximately 208 ac (84 ha), or 1 percent of the acreage of all ranked occurrences. The 4 "B/C"-ranked occurrences have an average size of approximately 52 ac (21 ha). One (2 percent) of the 60 extant ranked occurrences is identified as "C/D"-ranked. The area of the single "C/D"-ranked occurrence totals approximately 23 ac (9 ha), and constitutes 1 percent of the 20,131 ac area of all ranked occurrences (ICDC 2003).

Over the period of 1994 to 2003, 13 of the extant *Lepidium papilliferum* occurrences have decreased in quality. Because of the effects of habitat degradation and fragmentation, 1 declined to a "B"-rank and 12 declined to a "C"- or "D"-rank (ICDC 2003). The total acreage of occurrences documented as declining in rank is approximately 3,278 ac (1,326 ha), 16 percent of the total acreage of occupied habitat. During the same period, eight (10 percent) documented *L. papilliferum* occurrences have increased in quality because of the acquisition of better information from subsequent surveys since their original 1994 ranking: four increased to an "A"-rank, three increased to a "B"-rank, and one increased to a "C"-rank (ICDC 2003). The total area of occurrences documented as increasing in rank is approximately 3,251 ac (1,316 ha), 16 percent of the total area of occupied habitat.

Generally drought has been a factor in southern Idaho during these years; however effects may be localized and remain unqualified.

Habitat Integrity Index Monitoring of Occurrences

To provide a consistent monitoring methodology for use by management agencies, the ICDC in 1997 initiated a collaborative effort that included participation by IDARNG and BLM biologists. The result of this effort was development of a habitat integrity index (HII) for use in assessing and monitoring occupied *Lepidium papilliferum* habitat in southwestern Idaho (Mancuso and Moseley 1998). Index methodology is commonly used in ecological monitoring, and the HII protocol has been used since 1998 by ICDC, BLM, Air Force, and IDARNG to collect data on slickspot microsites and surrounding habitats. Effective monitoring of an annual plant species with a long-lived seed bank is often difficult, so use of a monitoring method that focuses on habitat condition may be more successful than monitoring of the above-ground expression of the seed bank (Elzinga et al. 1998). Since the abundance of *L. papilliferum* above-ground plants may fluctuate significantly from year to year due to site-specific microclimate conditions, HII was developed to assess the overall habitat condition that includes those attributes associated with the slickspot microsite and the sagebrush-steppe habitat, and to assess the prospects that an occurrence will persist over time, including factors affecting the viability and defensibility (degree of protection from human-caused impacts) of the occurrence (Mancuso 2001). This HII monitoring protocol consists of four components: (1) sampling along a transect to acquire specific slickspot microsite and adjacent habitat information; (2) vegetation plot sampling; (3) photo points; and (4) an Occurrence Viability scorecard.

Monitoring of fixed transects using HII illustrates how the number of *Lepidium papilliferum* counted at any one site can fluctuate from year to year. For example, in 1998, approximately 16,000 *L. papilliferum* plants were counted along 45 transects situated within 40 occurrences monitored by Mancuso (2000). In 1999, only 3,060 *L. papilliferum* plants were counted along these same transects and two additional transects. Mancuso (2001) continued his monitoring of these transects in 2000, documenting approximately 7,100 *L. papilliferum* plants. In 2001, approximately 4,045 *L. papilliferum* plants were observed on 48 transects representing 38 occurrences (Mancuso 2002). The 38 occurrences monitored using HII represent 51 percent of the 75 extant occurrences and 94 percent (approximately 19,243 ac (7,787 ha)) of the total known area occupied by *L. papilliferum*. Although there was some variation in the number of transects and occurrences monitored in different years, 38 of the same transects were monitored in all 4 years.

In summary, ICDC HII monitoring results for 1998 through 2001 documented habitat improvement at a few sites, but overall they revealed a steady decline of *Lepidium papilliferum* habitat quality in monitored areas during the 4-year period (Mancuso 2002). The decline of *L. papilliferum* was attributed to an altered wildfire regime, invasion of habitat by nonnative plants, habitat fragmentation, and human activities such as mining (Mancuso 2002). Generally drought has also been a factor in southern Idaho during these years; however effects may be localized and remain unqualified and were not part of the field study under the HII.

6. Problems Facing the Species

Summary of Threats to Lepidium papilliferum and Applicable References

An effective conservation agreement must diminish the threats that impact a species. Listed below are the threats presented by the FWS to the steering committee responsible for devising this CCA. Some participants find these threats real, pressing and endangering for slickspot peppergrass. Others do not. It is recognized that the United States Air Force has filed a Data Quality Act complaint and a Request for Correction of Information, and that the Office of Management and Budget found sufficient basis for the complaint to require the FWS to respond. Unless modified by the resolution of that complaint, these are the threats that the FWS must consider in their listing decision. Therefore, this is an appropriate place to start. Following the list of threats are the conservation measures that will address these threats.

Table 1. Threats

Threat	Source Materials Referenced
Wildfire Changes in the natural fire regime (i.e. frequency, intensity, and patch size) Changes in sagebrush-steppe ecosystem Potential invasion by nonnative annuals	DeBolt 1999, as cited in Air Force 2000 Harkness, pers. comm. 2003 ICDC 2003 ILPG, in litt. 1999 Martin, pers. comm. 2003 Masters and Sheley 2001 Miller et al. 1999 Moseley 1994 Scholten 2000 Whisenant 1990 Young et al. 1976 Young and Evans 1978
Wildfire Management Creating fire breaks, fire camps, and staging areas disturbing sagebrush-steppe and slickspot habitat causing: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants Use of suppression chemicals resulting in addition of nutrients to *L. papilliferum* habitat	BLM, in litt. 2001 ILPG, in litt. 1999 Scholten 2000
Wildfire Rehabilitation Mechanical impacts from drill seeding disturbing sagebrush-steppe and slickspot habitat causing: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants Competition from nonnative perennial plants Use of chemicals to control nonnative plants resulting in: impacts to seed bank impacts to individual plants	ICDC 2003 Mancuso, in litt. 1998 Scholten 2000 Scholten and Bunting 2001 Scholten and Bunting 2002

Threat	Source Materials Referenced
Livestock Grazing Trampling (especially when soils are wet) causing: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants impacts to insect pollinators Redistribution of organic matter through deposition of feces	Air Force 2000 Belnap, in litt. 2002 Ellison 1960 ICDC 2003 ILPG, in litt. 1999 Klott, pers. comm. 2000 Kearns and Inouye 1997 Kenin 1993 Mancuso 2000 Mancuso 2001 Mancuso 2002 Master and Sheley 2001 Meyer et al., in press 2003 Miller et al. 1999 Moseley 1994 Popovich 2001 Popovich 2002 Pyke 1999 Quinney and Weaver, pers. comm. 1998 Robertson 2002a Robertson 2002b Valentine 2001 Weaver, in litt. 1998 Young et al. 1976
Nonnative Plants Competition between *L. papilliferum* and nonnative plants that invade its habitat Addition of organic matter increasing likelihood of increased fire frequency, intensity, and size See also Wildfire, Grazing, Mining, and Motorized Vehicles	DeBolt, pers comm. 1999b Ellison 1960 ILPG, in litt. 1999 Klott, pers. comm. 2000 Master and Sheley 2001 Miller et al. 1999 Noss et al. 1995 Pyke 1999 Valentine 2001 Whisenant 1990 Young et al. 1976
Development on Public and Private Lands Agricultural conversion, urbanization, and other activities (such as road blading, ROW maintenance, and construction/maintenance of structures) disturbing sagebrush-steppe and slickspot habitat that causes: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants	Mancuso 2000 BLM 2001 BLM 2003 Moseley 1994
Threat	**Source Materials Referenced**
Military Training	Air Force 2000

Military training activities causing: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants	Air Force 2002b Quinney 2000
Mining Gravel and cinder mining activities causing: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants	DeBolt, pers. comm. 1999 Mancuso, in litt. 1998
Motorized Vehicles (ORV, fire suppression and military) Off-road motorized vehicle use causing: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants	ILPG, in litt.1999 BLM, in litt. 2002b
Predation Herbivory by livestock, wildlife, and insects	Mancuso in litt. 1998 BLM in litt. 2002a
Fragmentation and Isolation Fragmentation of sagebrush-steppe ecosystem inhibits dispersal and recolonization of suitable habitat and leads to reduced gene flow Fragmentation of habitat impacts pollinators	Moseley 1994 Kearns and Inouye 1997 Kenin 1993 Robertson 2002a Robertson 2002b
Recreation Recreation activities including permitted group activities, dispersed recreation, and modification/construction of developed sites that cause: degradation or loss of habitat impacts to seed bank crushing of plants introduction of nonnative plants ignition of fires	BLM 2003

7. Enrolled Lands

This CCA covers federal land, specifically BLM land and nonfederal land where specifically noted, incorporated and subjected to the provisions of this agreement by the landowner. These lands are

found throughout southern Idaho, in Ada, Canyon, Elmore, Gem, Payette, and Owyhee counties and are set forth specifically in the discussion section concerning conservation measures within each management area.

Twenty-five to thirty additional private land owners, some of whom lease state land, will also participate over the course of this CCA in the conservation of *Lepidium papilliferum*. Through a separate, yet parallel process, participants will voluntarily enter into Memorandums of Understanding with the State of Idaho, Office of Species Conservation, specifying the conservation measures they are willing to undertake on their private and state leased lands. This mechanism will allow for future incorporation of private and state lands outside of the designated management areas for the conservation of slickspot peppergrass. Ideally, over time, the state anticipates including 36,000 acres of additional private and state land for the protection of the species under similar conservation measures as specified in this CCA.

8. Legal Status

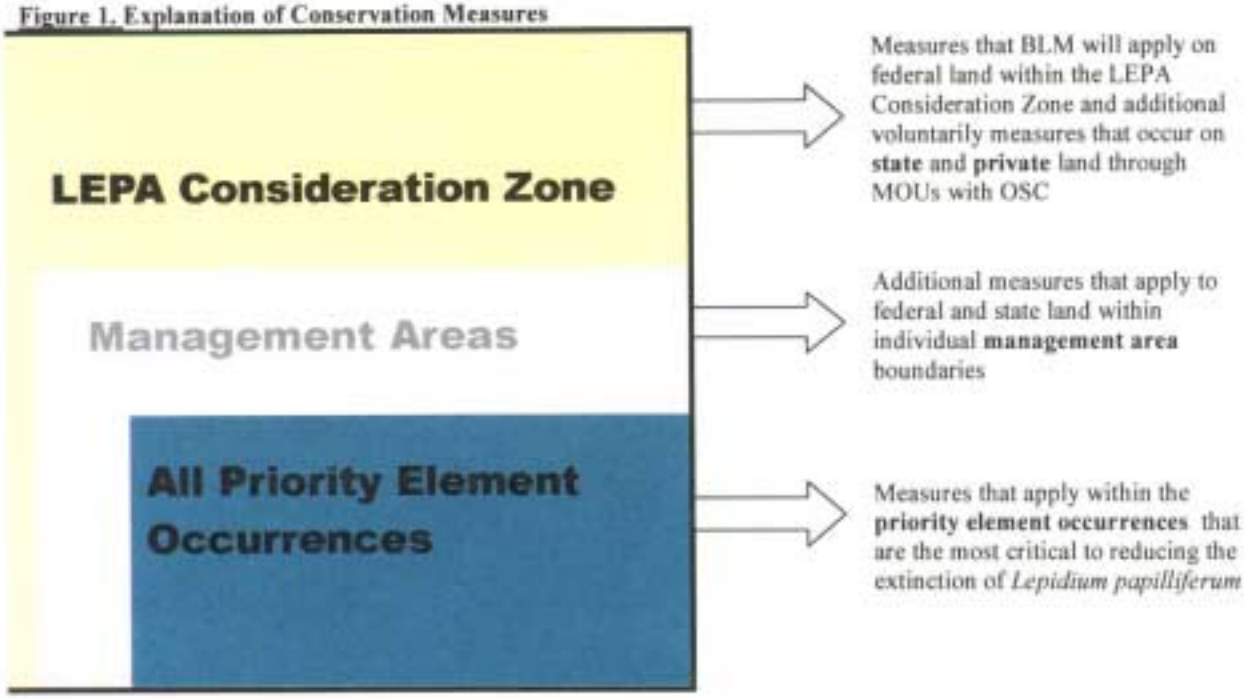
Slickspot peppergrass is a candidate species under the Endangered Species Act (67 Fed. Reg. 40657) and is proposed for endangered status (67 Fed. Reg. 46441). Candidate species are those for which the U.S. Fish and Wildlife Service has sufficient information on biological vulnerability and threats to support proposals to list them as endangered or threatened, and issuance of proposed rules for these species is precluded by other higher priority listing actions. Slickspot peppergrass is also considered a sensitive species by the BLM (ICDC 2002). BLM sensitive species are those designated by the state director, usually in cooperation with the state agencies responsible for managing the species as sensitive.

9. Conservation Measures

With the exception of fire that is universal throughout the area of consideration and varies only in the frequency of starts and reasons for starts, the presence and severity of an activity or threat varies throughout the species' range. Therefore, different approaches are needed to reduce, mitigate, and eliminate the threats.

Thus, a progressive conservation approach that recognizes and accounts for the unique challenges of protecting the plant across a landscape of segregated ownership and land use activities is needed to ensure the long-term viability of the plant. To accomplish this conservation measures have been developed to address concerns at three interrelated levels: the LEPA Consideration Zone (all areas that may or do contain LEPA); specified management areas; and specific priority element occurrences.

Figure 1. Explanation of Conservation Measures



The Bureau of Land Management has for the past several years instituted changes in management with the objective of protecting slickspot peppergrass. These actions focus on avoidance and protection of suitable habitat. Except where the obvious impact of disturbance was avoided the measures have not been in place long enough to result in quantifiable measures of their success. Most of these management actions have been carried forwarded into this document and are generally noted as continuing or on-going.

Following the 2000 fire season, BLM's fire program was augmented by 11 engines. The last of those engines were delivered just prior to the 2003 fire season. The benefits of the additional engines have yet to be apparent as the engines have yet to be fully staffed. It will take several years to be able to evaluate the results of this augmentation.

Additional money will be required to further augmentation of equipment and staff if those increases in capabilities do not achieve the fire management objectives outlined in this document. In any case, in order to achieve these objectives, the whole palette of fire prevention, suppression and control measures must be utilized.

The Bureau of Land Management has several regulatory mechanisms available to facilitate certainty in implementation of the conservation measures identified in this agreement for which BLM is the responsible party (*see* **Table 2**: Implementation Schedule for Conservation Measures). These include Instruction bulletins, Instruction Memorandums, Handbooks, Manuals, Resource Management Plans, grazing permits, and various land use authorizations such as right of way authorizations and organized recreation permits.

Instruction Memoranda (IMs) are temporary directives that provide new policies, guidance, and procedures, assign responsibility for an action/program, or interpret existing policy or procedures or give one-time instructions. Instruction Bulletins (IBs) are temporary directives that disseminate information, call attention to due dates, request minor actions, call attention to existing regulations, policies, or instructions, or request one-time reports or actions. BLM Manuals and Handbooks are permanent directives that document long-term policies, procedures, and instructions for BLM Programs. BLM Manuals and Handbooks may be supplemented by the State Director in Idaho with direction more specific to Idaho programs. This system of directives will be used by the Idaho State Director to ensure the BLM implements the conservation measures identified in this conservation agreement, presuming funding is available to accomplish the management actions that have been identified.

The *Federal Land Policy and Management Act of 1976* (FLPMA) as amended, 43 U.S.C. 1701 *et seq.*, provides the authority for the BLM land use planning. The BLM's Planning Regulations (43 CFR 1600) and the *National Environmental Policy Act* (NEPA) as well as BLM Manual (1600) and Handbook provide direction. The land use planning process resulting in Resource Management Plans is the key tool used by the BLM, in coordination with interested publics, to protect resources and designate uses on federal lands managed by BLM. The BLM Manual and Handbook provide guidance for plan preparation, revision, amendments and subsequent implementation-level plans. The three Resource Management Plans directing management of the public lands encompassed by this conservation agreement will be amended to incorporate the conservation agreement and direct its implementation.

BLM regulations (CFR Title 43, subpart 4130) provide the authority to issue grazing permits or leases to qualified applicants to authorize use of public lands managed by the BLM that are designated as available for livestock grazing through Resource Management Plans. Permits or leases specify the types and levels of livestock grazing use authorized as well as terms and conditions which will assist in achieving management objectives. Grazing permittees are prohibited from violating special terms and conditions incorporated in permits and leases. Failure to comply with the terms and conditions of the grazing permit can result in the termination of the permit. Grazing permits or leases for allotments encompassed by this conservation agreement will, through the annual grazing authorizations linked to permit/lease terms and conditions, require compliance with the conservation measures identified in this conservation agreement.

BLM regulations also address authorizations for use of public lands. Regulations (CFR Title 43, subpart 2800) address rights-of-way authorizations and temporary use permits that regulate, control and direct the use of rights-of-way on public lands through requirements that are designed, in part, to protect the natural resources associated with public lands. BLM has the discretion to issue special use permits for commercial use, competitive events and organized events (CFR Title 43, subpart 2932) and can include stipulations intended to protect natural resources associated with public lands. BLM may amend, suspend, or cancel these permits, given due process, if permit stipulations are violated or if necessary to protect public safety and health or the environment. BLM rights-of-way authorizations, temporary use permits, and special use permits will comply with the conservation measures identified in this conservation agreement.

As this document is to be used by various private landowners and public agencies, the following is listed for clarity. The Federal Fiscal Year (FY) is 1 October to 30 September, the Calendar Year (CY) is 1 January to 31 December, and the State Fiscal Year (FY) is 1 July to 30 June. All references to FY are to the Federal FY. The Cost and Implementation Schedule depicts abbreviated explanations of Action Descriptions to allow for a short entry. To review the complete description of the actions please refer to the main body.

LEPA Consideration Zone Conservation Measures (*See* **Map** at 145)

.01 BLM and Fire Cooperators will expand on and continue to provide special status plant and habitat awareness training to fire resource advisors, Incident Commanders, Engine Operators and Fire Operations Supervisors. Training will be formalized through issuance of an Instruction Memorandum by May 1, 2004.

.02 BLM and Fire Cooperators will make protection of known Element Occurrences (EO's) a priority over the surrounding Management Area on wildfires. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by May 1, 2004

.03 BLM will refine and formalize Standard Operating Procedures (SOP's) that address conservation of LEPA to be incorporated into Fire Management Plans. The Lower Snake District Fire Management Plan will be completed by September 30, 2004. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by May 1, 2004.

.04 BLM will evaluate, create and maintain fuel breaks along areas where frequent fires can threaten occupied and suitable habitat (for schedule see **Table 2**).

.05 Aggressive fire suppression tactics will be utilized in management areas when priority EO's are threatened. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by May 1, 2004.

.06 BLM will utilize stationary and mobile vehicle wash points for BLM vehicles and equipment to reduce transport of undesirable plant material. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.07 BLM and Fire Cooperators will distribute maps and inform fire crews on locations of Management Areas and element occurrences to maximize fire protection and to avoid or minimize impacts from fire prevention and/or suppression activities. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by May 1, 2004.

.08 BLM will use seeding techniques that minimize soil disturbance such as no-till drills and rangeland drills equipped with depth bands when rehabilitation and restoration projects have the potential to impact occupied and suitable habitat. Rehabilitation and restoration standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.09 BLM will continue to rest rehabilitated areas from land use activities to meet rehabilitation management objectives, defined through the Emergency Stabilization and Restoration plans. "Interagency Burned Area Emergency Stabilization and Rehabilitation Handbook", Version 2.0 Draft, currently being revised, Department of Interior, Departmental Policy Guidance (manual).

.10 BLM will use native plant materials and seed if available (*see* conservation measure .11) during restoration and rehabilitation activities unless use of non-native, non-invasive species would contribute beneficially to maintenance and protection of occupied and suitable habitat. Fire rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.11 If native plant materials and seed are not available, BLM will avoid use of invasive non-native species for restoration or rehabilitation activities. Restoration and rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.12 BLM will include forbs in seed mixes to increase diversity and pollen sources for insect pollinators. Restoration and rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.13 Private landowners and permit holders will coordinate with BLM to increase participation in fire prevention, suppression, planning and rehabilitation.

.14 BLM will authorize organized recreation activities only in areas free of occupied and suitable habitat. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.15 BLM will educate recreationists on special status species & invasive weeds focusing on occupied and suitable habitat areas (for schedule see **Table 2**).

.16 BLM, in cooperation with Cooperative Weed Management Areas (CWMA) cooperators, will establish voluntary OHV wash points for dispersed recreationists at key locations.

.17 BLM will require the use of equipment wash for organized recreation events where invasive or noxious weed introduction could pose a threat to occupied or suitable habitat. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.18 BLM will require complete botanical survey using USFWS Rare Plant Inventory Guidelines within occupied and suitable habitat prior to actions that entail soil disturbance authorizations. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.19 BLM will require that all authorizations contain weed control measures. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.20 BLM will increase the frequency of compliance inspections associated with land use permits in occupied and suitable habitat areas. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.21 BLM will increase research on elimination and control of invasive species.

.22 BLM will require portable wash racks at agency authorized construction sites. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.23 BLM and CWMA cooperators will train weeds staff on LEPA and occupied and suitable habitat recognition. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.24 BLM will require complete botanical surveys for LEPA and its habitat prior to authorizing herbicide use. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.25 BLM will opportunistically acquire occupied and suitable habitat in land exchanges.

.26 BLM will strive to conserve remaining stands of sagebrush or native vegetation in making land management and project level decisions. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.27 BLM will require that new, renewing or amending right of way holders or other related permit holders to establish 40 - 60% perennial cover depending on the location of the project after all ground disturbing activities. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.28 BLM will incorporate requirements that new, renewing or amending right of way holders contact the Land Management Agency for ground disturbing activities in occupied and suitable habitat, pre and post construction. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.29 BLM and Law Enforcement Cooperators will modify agreements to increase Law Enforcement patrols to improve adherence to access management requirements and to discourage trespass (*see* **Table 2**).

.30 BLM will train permittees on LEPA and occupied and suitable habitat recognition.

.31 The BLM will conduct periodic compliance inspections during soil disturbance projects and increased inspections during use periods to prevent impacts on occupied and suitable habitat. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.32 The Slickspot Peppergrass Conservation Team, through the State of Idaho Conservation Data Center (CDC) will conduct annual monitoring within all EO's in all MA's 1-11 to assess the effectiveness of the conservation measures. Protocols that expand the existing Habitat Integrity Index (HII) to encompass the monitoring required by this CCA will be in place by May, 2004.

.33 BLM, FWS, and the state will continue to survey lands within the LEPA Consideration Zone and report survey information to the CDC and incorporate the information into the CCA adaptive management strategy.

.34 BLM in cooperation with the US Department of Agriculture (USDA) Plant Protection and Quarantine (PPQ) will aggressively work to minimize the risk of insect (i.e. Mormon crickets and grasshoppers) herbivory when outbreaks occur that may threaten existing element occurrences.

.35 BLM will provide USDA PPQ with the location of *Lepidium papilliferum* habitat. Mormon cricket and grasshopper control in *Lepidium papilliferum* habitat will only include those methods that do not significantly impact the plant's pollinators.

Management Area Conservation Measures

The development of management areas provides an organizational structure that facilitates the management of slickspot peppergrass in distinct segments across its range. Each management area has specific conservation measures for the multiple element occurrences located within it. The conservation measures for the management area are designed to eliminate, reduce or mitigate the impacts of site specific activities and threats and to maintain or restore the sagebrush–steppe habitat. The use of this concept promotes management of slickspot peppergrass habitat across, its range, that is based on location or site specific characteristics and issues. Consideration of administrative boundaries, specifically grazing allotments boundaries, private, state, or federal land was also factored into the designation of the management areas.

Priority Element Occurrence Conservation Measures

In addition to the conservation measures for management areas, selected "priority" element occurrences have been identified within each management area listed below for additional, site-specific conservation measures. These element occurrences were designated based on criteria including: existing habitat quality, geographic location relative to other existing occurrences to promote connectivity for the species, minimal land-use activities, the absence or presence of resources to address threats, the need to preserve enough element occurrences throughout the species range to prevent extinction in case of a catastrophic event.

The conservation measures are designed to reflect even greater priority on protection and restoration of the habitat within the element occurrences.

1. New Plymouth / Canyon County Management Area

This MA is located on BLM land south of New Plymouth on either side of I-84. This MA marks the known northwest extent of the species range. Most of this area has burned in the past and has been converted to annual grassland vegetation. Portions of the MA have been seeded during fire rehabilitation activities, with varying degrees of success. Small scattered remnant stands of unburned sagebrush remain. The distribution of slickspots is limited within this MA, occurring mainly along ridgelines. This MA contains four (066, 068, 069, 070) known slickspot peppergrass occurrences. Element occurrences 066 and 070 are priority occurrences. Known occurrences in the MA range in size from approximately 1 to 5 acres. All occurrences are included within or surrounded by degraded annual grassland habitat. This MA is surrounded by private agricultural land on all sides. *See* **Map** at 146.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and exchanges.

The following conservation measures will be implemented across the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

1.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM and the State, in granting authorization to use heavy ground moving equipment for fire suppression.

1.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 200 acres (reduced from the current suppression target of less than 500 acres).

1.3 Land management agencies will protect remnant blocks of native vegetation from fire when possible, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

1.4 BLM in coordination with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible. Interagency Standards for Fire and Fire Aviation Operations, issued annually.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

1.5 BLM and the State will manage authorized off highway vehicle (OHV) recreation to avoid impacts to occupied and suitable habitat.

1.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

1.7 BLM in conjunction with the CWMA cooperators will require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

1.8 BLM will assign priority to treatment of nonnative invasive or weed species with emphasis on treating the immediate EO 66 and 70.

1.9 BLM and the State will require restoration and rehabilitation to native conditions in trespass cases damaging sagebrush-steppe habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

1.10 The BLM and the State will require temporary or permanent project fencing to protect occupied habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

1.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

1.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

1.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range and other appropriate resource specialists, based on the experience of the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

1.14 Fall and winter grazing. No trailing livestock through element occurrences in the management area when soils are saturated. Permittee will move cattle away from vicinity of EOs when soils become saturated.

1.15 Permittee, with BLM cooperation and authorization, will relocate the existing water trough currently adjacent to EO 68 to ¾ of a mile away to a new location to prevent livestock congregation within the vicinity of this element occurrence.

1.16 Permittee, with BLM cooperation and authorization, will provide an alternate water source one (1) mile north of EO 69 to prevent livestock congregation within the vicinity of this element occurrence.

1.17 Permittee within the management area will use only existing roads and tracks for vehicle travel.

The following conservation measures will be implemented within EO 66. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will maintain the existing exclosure fence to prevent livestock from grazing within the vicinity of the element occurrence.
- Private land owner will incorporate that portion of their deeded land (private land) as described herein, that is located within the existing exclosure maintained by BLM to prevent livestock from grazing within the vicinity of this element occurrence (those portions of Twp 6N Rng 4W Sec 4 NE1/4, SE1/4NW1/4, NW1/4SE1/4 Twp 6N Rng 4W Sec 3 N1/2NW1/4 that lie within the existing exclosure).
- BLM will not issue new land use authorizations within exclosed area.
- BLM and the State will, upon reauthorization or renewal, address restoration of sagebrush-steppe ecosystem if degradation is demonstrated to be associated with authorized uses.
- BLM will concentrate ecosystem restoration efforts within and adjacent to this EO.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.

- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will maintain existing closure to motorized recreational activities.

The following conservation measures will be implemented within EO 70. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM and the State will upon reauthorization or renewal address restoration of sagebrush-steppe ecosystem if degradation is demonstrated to be associated with authorized uses.
- BLM will concentrate ecosystem restoration efforts within and adjacent to this EO.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- Permittee will request modification of time of use for fall and winter grazing only.
- When soils become moist the livestock will be moved, before the soils become saturated, to a fenced pasture east of the element occurrence.

2. Boise Foothills / BLM Management Area

This MA is located on BLM land in the lower Boise foothills north of Eagle, Idaho. Portions of this area have burned in the past, and the area currently contains a mix of burned, unburned, and mosaic burned habitat. Remnant stands of scattered unburned sagebrush remain. Slickspots are much less common in the foothills compared to the nearby plains. Some areas in this MA contain few or no slickspots. This MA contains four (039, 040, 052, 056) known slickspot peppergrass occurrences. Element occurrence 052 is a priority occurrence. Known element occurrences in the MA range in size from less than an acre to approximately 75 acres. The smaller occurrences are comprised of a few slickspots, and the larger occurrences are comprised of several clusters of slickspots scattered over a large area interspersed with unoccupied habitat. Slickspot peppergrass element occurrences range from degraded annual grassland habitat to relatively intact sagebrush habitat. This MA is surrounded by private lands open to development and/or rangeland uses. *See* **Map** at 147.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented across the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

2.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM in granting authorization to use heavy ground moving equipment for fire suppression.

2.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 200 acres (reduced from the current suppression target of less than 500 acres).

2.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

2.4 BLM in coordination with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

2.5 BLM will manage OHV recreation to minimize impacts to occupied and suitable habitat.

2.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

2.7 BLM in conjunction with the CWMA cooperators require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

2.8 BLM will assign priority to treatment of nonnative invasive or weed species with emphasis on treating the immediate area in and around EO 52.

2.9 BLM will require restoration and rehabilitation to native conditions in trespass cases damaging sagebrush-steppe habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

2.10 The BLM will require temporary or permanent project fencing to protect habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

2.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

2.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

2.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

2.14 No trailing cattle through element occurrences within the management area when soils are saturated.

2.15 Permittee will graze livestock during fall and winter in the Black Canyon allotment. If soils become saturated permittee will move cattle away from element occurrences into an adjacent fenced field where the species and habitat are not present to prevent penetrating trampling.

2.16 Permittee will not graze the allotment containing element occurrence 56 the 2004 grazing season. Permittee will only graze during the fall and winter during future grazing seasons and will move livestock to adjacent pastures to avoid penetrating trampling during periods when the soils become saturated.

2.17 Permittees within the management area will use only existing roads and tracks for vehicle travel.

The following conservation measures will be implemented within EO 52. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will not issue new land use authorizations.

- BLM will, upon reauthorization or renewal, address restoration of sagebrush-steppe ecosystem if degradation is demonstrated to be associated with authorized uses.
- BLM will concentrate ecosystem restoration efforts within and adjacent to this EO.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- When soils are moist cattle will be moved from the vicinity of the element occurrence to a separate fenced pasture east of the occurrence before the soils become saturated.

3. Boise Foothills / County Landfill Management Area

This MA is located on Ada County, Idaho landfill property in the Boise foothills. This MA is characterized by burned areas supporting a mix of native and nonnative grasses and unburned relatively intact sagebrush steppe habitat. Slickspots are much less common in the foothills compared to the nearby plains. Some areas in this MA contain few or no slickspots. This MA contains two (038, 065) known slickspot peppergrass occurrences. Both known occurrences in the MA are comprised of a few slickspots and are less than an acre in size. One of the occurrences is in an area that burned in the past and the other has been lightly burned. Slickspot peppergrass occurs in the buffer zone that surrounds the actively used portion of the county sanitary landfill. This MA is surrounded by private lands open to development and/or rangeland uses. *See* **Map** at 148.

The primary threats and activities that impact the species in this management area include: fire, invasion of nonnative plant species, and land use authorizations and land exchanges.

The following conservation measures should be implemented through pursuing cooperative management agreements with the private landowners and/or the county for both the MA and EO's; however, at this time there is no commitment from either private land owners or the county to undertake these measures. Ideally, the following measures will be negotiated and implemented as soon as possible:

Fire

3.1 Protect remnant blocks of native vegetation, especially late seral.
3.2 Evaluate, delineate and maintain fire breaks around and within this management area.
3.3 Use only native species for re-seeding activities, when available, and use non-invasive, non-natives only when native plant species are not available.

Invasive Nonnative Plant Species

3.4 Require weed spraying control measures (< 7mph wind speed, large droplet spray only, reduced pump pressure, spot spraying).

Land Use Authorizations and Land Exchanges

3.5 Require rehabilitation and restoration to native conditions in trespass cases damaging habitat.
3.6 Avoid all occupied habitat & disturbance to suitable habitat in ground moving projects.
3.7 Conduct periodic project compliance inspections during soil disturbance projects and increase compliance inspections during use periods.
3.8 Conserve occupied and suitable habitat through land exchanges or conservation easements when opportunity arises
3.9 BLM and the County will require temporary or permanent project fencing as appropriate to protect occupied habitat adjacent to construction activities

The following conservation measures should be implemented within EO 38.

- Concentrate ecosystem restoration efforts within and adjacent to this EO.
- Use only hand sprayers for herbicide.
- Require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- Establish 10 ft spray buffer zones around slickspots for weed control activities.
- Pull weeds by hand within 10 ft no spray buffer zone.

The following conservation measures should be implemented within EO 65.

- Concentrate ecosystem restoration efforts within and adjacent to this EO.
- Use only hand sprayers for herbicide.
- Require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- Establish 10 ft spray buffer zones around slickspots for weed control activities.
- Pull weeds by hand within 10 ft no spray buffer zone.

4. Boise Foothills / Private Management Area

This MA is located in the Boise foothills, from Bogus Basin Road, south to the Hulls Gultch/Military Reserve area. The MA contains five (012, 023, 036, 037, 043) known slickspot peppergrass occurrences. One of these occurs within Military Reserve Park, land managed by the City of Boise. The other four occurrences are on private land. Each occurrence is small, consisting of a few small slickspots, or only a solitary slickspot in at least one case. Most of the occurrences are located within or in close proximity to areas subject to foothills housing development. Habitat varies from cheatgrass-dominated annual grassland, to patches of relatively intact sagebrush vegetation. Much of the landscape surrounding these occurrences burned in the 1996 foothills fire. *See* **Map** at 149.

The primary threats and activities that impact the species in this management area include: fire, invasion of nonnative plant species, and land use authorizations and land exchanges.

The following conservation measures should be implemented pursuing cooperative management agreements with the private landowners for both the MA and EO's; however, at this time there is no

commitment from either private land owners or the county to undertake these measures. Ideally, the following measures will be negotiated and implemented as soon as possible:

Fire

4.1 Protect remnant blocks of native vegetation, especially late seral sagebrush steppe habitats.
4.2 Evaluate, delineate and maintain fire breaks around and within this management area.
4.3 Use only native species for re-seeding activities, when available, and use non-invasive, non-natives only when native plant species are not available.

Invasive Nonnative Plant Species

4.4 Require weed spraying control measures (< 7mph wind speed, large droplet spray only, reduced pump pressure, spot spraying).

Land Use Authorizations and Land Exchanges

4.5 Require rehabilitation and restoration to native conditions in trespass cases damaging habitat.
4.6 Avoid all occupied habitat & disturbance to suitable habitat in ground moving projects.
4.7 Conduct periodic project compliance inspections during soil disturbance projects and increase compliance inspections during use periods.
4.8 Conserve occupied and suitable habitat through land exchanges or conservation easements when opportunity arises
4.9 BLM and the County will require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities

The following conservation measures should be implemented within EO 12.

- Concentrate ecosystem restoration efforts within and adjacent to this EO.
- Use only hand sprayers for herbicide.
- Require control of invasive non-native or weed species on all existing right of way authorizations.
- Establish 10 ft spray buffer zones around slickspots for weed control activities.
- Pull weeds by hand within 10 ft no spray buffer zone.
- Develop and install educational signage at entry and key restriction access points regarding biology and conservation of LEPA and sagebrush-steppe habitat.

5. Boise Management Area

This MA is located south of Boise, extending approximately six miles southward from the airport area. The MA contains five (022, 032, 048, 049, 064) known slickspot peppergrass occurrences, located on BLM, State, private, or a mix of ownership lands. Element occurrences 032 and 048 are priority occurrences. Element occurrences range in size from a few slickspots to over 600 acres. However, even within the larger element occurrences, only a small fraction of the area supports slickspot peppergrass. Substantial portions of this MA have burned in the past and are now

dominated by annual grassland vegetation. Remaining stands of sagebrush have an understory dominated by cheatgrass in most places. Slickspot peppergrass occurrences are found in unburned and mosaic burn habitats, although at one occurrence plants extend into an adjacent burned zone. *See* **Map** at 150.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented across the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

5.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM, in granting authorization to use heavy ground moving equipment for fire suppression.

5.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area with the intent to meet management objectives to suppress ninety (90%) of all fires to less than 20 acres.

5.3 BLM in coordination with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

5.4 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

5.5 BLM will manage OHV recreation to minimize impacts to occupied and suitable habitat.

5.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

5.7 BLM in conjunction with the CWMA cooperators require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

5.8 BLM will assign priority to treatment of nonnative invasive or weed species with emphasis on treating EO 32 and 48

5.9 BLM will require restoration and rehabilitation to native conditions in trespass cases damaging occupied LEPA habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

5.10 The BLM will require temporary or permanent project fencing to protect occupied habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

5.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

5.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

5.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

5.14 No trailing cattle through element occurrences within the management area when soils are saturated.

5.15 Permittee will herd livestock away from vicinity of element occurrences within the management area when soils are moist and when soils become saturated move cattle to either fenced private land or outside of the management area to Sunnyside Spring/Fall allotment to prevent penetrating trampling.

5.16 Permittees within the management area will use only existing roads and tracks for vehicle travel.

5.17 Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of EO's.

The following conservation measures will be implemented within EO 32. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- Require rehabilitation and restoration to native conditions in trespass cases where the sagebrush-steppe habitat is damaged.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will evaluate the need for and may implement motorized vehicle restrictions.
- All supplements and water sources will be placed a mile away from the vicinity of this priority element occurrence.
- Permittee will herd livestock away from vicinity of this priority element occurrence. When soils are moist the permittee will move livestock to either fenced private land or outside of the management area to Sunnyside Spring/Fall allotment to prevent penetrating trampling.

The following conservation measures will be implemented within EO 48. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- All supplements and water sources will be placed a mile away from the vicinity of this priority element occurrence.
- Permittee will herd livestock away from vicinity of this priority element occurrence. When soils are moist the permittee will move livestock to either fenced private land or outside of the management area to Sunnyside Spring/Fall allotment to prevent penetrating trampling.

6. Kuna Management Area

This MA is located south of Kuna, extending from the Kuna Butte area southward for approximately seven miles to south of Initial Point. The MA contains six (018, 019, 024, 025, 042, 057) known slickspot peppergrass occurrences. All of the occurrences are located on BLM land. All but one occurrence is located fully or partially within the Snake River Birds of Prey National

Conservation Area. Element occurrences 018 and 057 are priority occurrences. A series of wildfires have swept through this area in the past ten years and the great majority of the original shrub-steppe vegetation has been converted to annual grassland or crested wheatgrass seedings. All but one of the known slickspot peppergrass occurrences in the MA are located in areas that have burned. A few small remnant shrub stands are all that remain within these occurrences. The one occurrence that has not burned is surrounded by cheatgrass-dominated burned habitat. Most of the slickspot peppergrass occurrences within this MA are relatively large, 20 acres or more. The extensive Initial Point occurrence (019), covering over 1000 acres, once supported abundant slickspot peppergrass scattered over a series of subpopulations. Slickspot peppergrass is now rare over this large, burned area. Most of the other occurrences within this MA were also known to support relatively large slickspot peppergrass numbers in the past. *See* **Map** at 151.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented within the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

6.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM and the State (IDL), in granting authorization to use heavy ground moving equipment for fire suppression.

6.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area with the intent to meet management objectives to suppress ninety (90%) of all fires to less than 100 acres (reduced from the current suppression target of less than 200 acres).

6.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

6.4 BLM in coordination with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

6.5 BLM and the State will manage OHV recreation to minimize impacts to occupied and suitable habitat.

6.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

6.7 BLM in conjunction with the CWMA cooperators require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

6.8 BLM will assign priority to treatment of nonnative invasive or weed species with emphasis on treating the immediate EO 18 and 57.

6.9 BLM and the State will require restoration and rehabilitation to native conditions in trespass cases damaging occupied LEPA habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

6.10 BLM and the State will require temporary or permanent project fencing to protect habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

6.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

6.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

6.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or

the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

6.14 Permittees will not trail livestock through element occurrences within the management area when soils are saturated.

6.15 Grazing for this management area will be limited to the fall and winter grazing season, beginning approximately on October 1, which ever comes first. Permittee will herd livestock away from priority occurrences if the soils become moist and will relocate livestock if soils become saturated and penetrating trampling is likely to occur to one of three alternative sites, (two of the alternative sites are fenced), away from existing priority element occurrences. If soils are likely to become saturated permittee will also relocate livestock away from the vicinity of existing element occurrences by moving livestock to one of three alternative sites, (two of the alternative sites are fenced).

6.16 Permittees within the management area will use only existing roads and tracks for vehicle travel.

6.17 Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of EO's.

The following conservation measures will be implemented within EO 18. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- BLM Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will evaluate the need for and implement as appropriate motorized vehicle restrictions.

The following conservation measures will be implemented within EO 57. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will evaluate the need for and implement as appropriate motorized vehicle restrictions.

7. Gowen Field/Orchard Training Area Management Area

This MA is located approximately 20 miles south-southeast of Boise, on BLM land within the Snake River Birds of Prey National Conservation Area. The MA is located within the Orchard

Training Range and used by the Idaho Army National Guard for training purposes. Contiguous portions of the Orchard Training Area occur to the south of the MA, while a mix of BLM, State, and private lands extend to the north. The MA contains seven (027, 028, 035, 041, 053, 059, 067) known slickspot peppergrass occurrences. Three of them (027, 028, 067) are located within large stands of intact sagebrush habitat. These stands cover several thousand acres and represent the largest blocks of unfragmented sagebrush habitat remaining along the western Snake River Plain, north of the Snake River. Several of the occurrences within the MA support relatively large numbers of slickspot peppergrass. They represent some of the largest occurrences rangewide. Element occurrences 027 and 028 are priority element occurrences. Large sections of Orchard Training Range located south of the MA contain burned annual grassland or mosaic burned habitats. The Idaho Army National Guard has implemented a number of conservation measures on behalf of slickspot peppergrass within the training range. They have also sponsored much of the life history and other research completed or ongoing for slickspot peppergrass. *See* **Map** at 152.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling, military training and land use authorizations and land exchanges.

The following conservation measures will be implemented within the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

7.1 Known locations of occupied LEPA habitat will be considered by Land Managers, specifically BLM and the State, in granting authorization to use heavy ground moving equipment for fire suppression.

7.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from the current suppression target of less than 200 acres).

7.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

7.4 BLM in coordination with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

7.5 BLM and the State will manage OHV recreation to minimize impacts to occupied and suitable habitat.

7.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

7.7 BLM will evaluate the need for and implement as appropriate motorized vehicle restrictions.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

7.8 BLM in conjunction with the CWMA cooperators require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

7.9 BLM will assign priority to treatment of nonnative invasive or weed species with emphasis on treating EO 27 and EO 28.

7.10 BLM and the State will require restoration and rehabilitation to native conditions in trespass cases damaging occupied LEPA habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

7.11 The BLM and the State will require temporary or permanent project fencing to protect occupied habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

7.12 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

7.13 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

7.14 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or

the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

7.15 Permittees will not trail livestock through element occurrences within the management area when soils are saturated. Permittees when directed by the BLM will move livestock to an alternate area either outside of the management are or to private land to avoid penetrating trampling during periods when soils are saturated.

7.16 Permittee will delay turnout, when soils are saturated.

7.17 Confine vehicle use to existing roads and tracks where element occurrences are present.

7.18 Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of EO's.

Military Training

The following conservation measures were developed with the Idaho Army National Guard (IDARNG) and will be implemented under the 2004-2008 Gowen Field/Orchard Training Area Integrated Natural Resource Management Plan (INRMP). Preparation and implementation of the INRMP is required by law under the Sikes Act. See 16 U.S.C. § 670 *et seq.* The responsibilities of the IDARNG under the CCA are limited to funding and implementing the following conservation measures, in accordance with its INRMP, on the Gowen Field/Orchard Training Area (GFTA).

7.19 Continue to prevent damage to and fragmentation of the late seral sagebrush-steppe habitat in which slickspot peppergrass occurs on the Orchard Training Area by controlling IDARNG vehicle traffic through "off limit" areas and restricted travel.

7.20 Continue to annually monitor vegetation trends in the late seral sagebrush habitat to determine if the vegetation composition remains stable under current uses and management.

7.21 Continue to monitor previously established transects and Habitat Integrity Index plots.

7.22 Continue to use only native species and broadcast seeding methods for any habitat restoration projects.

7.23 Continue to manage military activities to protect slickspot peppergrass populations and surrounding habitat from training damage.

7.24 Continue to review plans for military training exercises in the management area and position them so they do not affect slickspot peppergrass populations and surrounding habitat.

7.25 Continue to require troops to view environmental briefings before training and emphasize the importance or protecting slickspot peppergrass.

7.26 Continue to install and maintain signs designating population centers.

7.27 Continue to monitor the management area to ensure off-limits areas have been respected.

7.28 Continue to minimize opportunities for the introduction of invasive and noxious plants on the Orchard Training Area by requiring pre-washing of non-local military vehicles entering the area.

7.29 Continue to report to BLM areas of invasive and noxious plants as they are located.

7.30 Continue to cooperate with BLM in the control of non-native noxious weeds.

7.31 Continue to disallow the development of new roads through slickspot peppergrass habitat.

7.32 Continue the mutual support agreement with BLM for the suppression of wildfires in the National Conservation Area.

7.33 Continue to inform firefighters of the location of important slickspot peppergrass habitat and implement minimum impact suppression tactics in those areas.

7.34 Continue to provide a high level of rapid response fire protection during fire season when military activities are occurring on the Orchard Training Area.

7.35 Continue to implement the Integrated Natural Resources Management Plan (INRMP) for the Orchard Training Area.

The following conservation measures will be implemented within EO 27 and EO 28.

- BLM will not issue new land use authorizations.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- All supplements and water sources will be placed a mile away from the vicinity of these priority occurrences.
- Permittee will graze within these element occurrences when the soils are dry. If precipitation occurs causing the soil to become tracking wet and the ten day forecast predicts more rain the livestock will be removed from the vicinity of the priority element occurrences.

8. Orchard Management Area

This MA is located approximately 20 miles southeast of Boise, east of Orchard. Slickspot peppergrass occurrences in the MA are located within a few miles east or west of I-84. The MA contains six occurrences (015, 020, 030, 031, 054, 060), most of which occur on both BLM and adjacent private land. Element occurrences 020 and 030 are priority element occurrences. The MA encompasses only BLM land, however. Fires have burned large tracts of land along the I-84 corridor between Boise and Mountain Home and are now dominated by annual grassland vegetation. The MA includes slickspot peppergrass occurrences that have been completely burned, are comprised of distinct burned and unburned sagebrush segments, or are unburned, but surrounded by burned or mosaic burned habitat. Unburned areas have native bunchgrasses, but also tend to have abundant cheatgrass cover. Element occurrences within the MA are relatively large, ranging from about 3 to 500 acres, although in each case only a portion is occupied by slickspot peppergrass. *See* **Map** at 153.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented within the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

8.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM, in granting authorization to use heavy ground moving equipment for fire suppression.

8.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from the current suppression target of less than 200 acres).

8.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

8.4 BLM with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures.

8.5 BLM will manage OHV recreation to minimize impacts to occupied and suitable habitat.

8.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures.

8.7 BLM in conjunction with the CWMA cooperators require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

8.8 BLM will assign priority to treatment of nonnative invasive or weed species with this management area.

8.9 BLM will require restoration and rehabilitation to native conditions in trespass cases damaging occupied LEPA habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

8.10 The BLM will require temporary or permanent project fencing to protect occupied habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

8.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

8.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

8.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

8.14 Permittees will not trail livestock through element occurrences within the management area when soils are saturated.

8.15 Confine vehicle use to existing roads and tracks where element occurrences are present.

8.16 Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of element occurrences.

The following conservation measures will be implemented within EO 20. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will evaluate the need for and implement as appropriate motorized vehicle restrictions.
- All supplements and water sources will be placed a mile away from the vicinity of this priority occurrence.

The following conservation measures will be implemented within EO 30. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM, the permittee, and CWMA cooperators will use only hand sprayers for herbicide.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will evaluate the need for and implement as appropriate motorized vehicle restrictions.
- No spring grazing in the northwestern segment of the EO during 2004.
- Permittee in cooperation with the BLM will change the remaining period of use for this EO from February through March to November through January.
- Permittee will coordinate turnout for this new period with BLM and delay turnout if soils are saturated and CPT will occur.

9. Mountain Home Management Area

Occurrences in this MA are located near the northwestern, eastern, and southern outskirts of Mountain Home, and also further west to the Crater Rings area, and further south to within a few miles northwest of Hammett. The MA contains eight occurrences (002, 010, 021, 029, 050, 051, 061, and 062). Element occurrences 021 and 051 are priority element occurrences. They are located predominately on BLM lands, although one occurrence extends onto adjacent State land. Private land occurs in close proximity to several occurrences. Large areas of public and private land in the Mountain Home region have burned in the past and are now dominated by annual grassland vegetation. Most occurrences in the MA are located within remnant sagebrush stands. These stands vary in size from less than one to over 100 acres, and are generally surrounded by burned habitat. *See* **Map** at 154.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented across the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

9.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM, in granting authorization to use heavy ground moving equipment for fire suppression.

9.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from the current suppression target of less than 200 acres).

9.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

9.4 BLM with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures.

9.5 BLM will manage OHV recreation to minimize impacts to occupied and suitable habitat.

9.6 BLM and the State will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures.

9.7 BLM in conjunction with the CWMA cooperators require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

9.8 BLM will assign priority to treatment of nonnative invasive or weed species with this management area.

9.9 BLM and the State will require restoration and rehabilitation to native conditions in trespass cases damaging sagebrush-steppe habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

9.10 The BLM and the State will require temporary or permanent project fencing to protect occupied habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

9.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

9.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

9.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined by BLM and the permittee to determine the best available location.

9.14 Permittees will not trail livestock through element occurrences within the management area when soils are saturated.

9.15 Confine vehicle use to existing roads and tracks where element occurrences are present.

9.16 No grazing will be conducted in the area containing EO 50.

The following conservation measures will be implemented within EO 21. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will use aerial seeding and/or no-till drill.
- BLM will not issue new land use authorizations within occupied and suitable habitat.
- Idaho Department of Lands will mitigate impacts to slickspot habitat resulting from authorized land use activities conducted after this agreement is signed.
- BLM, the permittee, and the CWMA cooperators, along with the State will use only hand sprayers for weed control activities.
- BLM and the State will require control of invasive non-native or weed species on all existing right of way authorizations.
- BLM and the State will establish 10 ft spray buffer zones around slickspots in this EO.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- The State will establish a closure to off road motorized recreational activities within occupied and suitable habitat.
- Grazing is prohibited on this EO.
- Private land owner will incorporate 160 acres of private land (NW ¼ sec 17 T35 R5E) within a currently fenced area to maintained by BLM to prevent livestock from grazing within the vicinity of this element occurrence. This land will remain excluded from grazing until such time the owner sells it.

The following conservation measures will be implemented within EO 51. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will use aerial seeding and/or no-till drill only.
- BLM will not issue new land use authorizations with occupied and suitable habitat.
- BLM, the permittee, and the CWMA cooperators, along with the State will use only hand sprayers for weed control activities.
- BLM will require control of invasive non-native or weed species on all existing right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- Permittee will herd livestock away from slickspots during the 2004 grazing season
- As soon as possible BLM will install a fence and the permittee will maintain the fence, creating a pasture containing this element occurrence, which will not be grazed during periods when the soils are saturated.

10. Glenns Ferry / Hammett Management Area

This MA is located northwest of Glenns Ferry. Occurrences in the MA represent the eastern distribution limit of slickspot peppergrass on the western Snake River Plain. The MA contains four known element occurrences (008, 026, 058, 063), all located on BLM land. Element occurrences 008, 026 and 058 are priority element occurrences. One of these (063) is small and occurs within a large block of burned, annual grassland-dominated habitat. The other three occurrences are much larger, varying from approximately 300 to 900 acres, and characterized by unburned sagebrush habitat over most of their extent. These sagebrush blocks are some of the largest remaining in the western Snake River Plain, north of the Snake River. Part of one occurrence (008) initially burned in the 1980s, but still contains some slickspot peppergrass. *See* **Map** at 155.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented across the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

10.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM, in granting authorization to use heavy ground moving equipment for fire suppression.

10.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent

(90%) of fires to less than 100 acres (reduced from the current suppression target of less than 300 acres).

10.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

10.4 BLM with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

10.5 BLM and the State will manage OHV recreation to minimize impacts to occupied and suitable habitat.

10.6 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

10.7 BLM in conjunction with the CWMA cooperators and the State will require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

10.8 BLM will assign priority to treatment of nonnative invasive or weed species with EO 8, EO 26, and EO 58.

10.9 BLM will require restoration and rehabilitation to native conditions in trespass cases damaging sagebrush-steppe habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

10.10 The BLM will require temporary or permanent project fencing to protect occupied habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

10.11 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

10.12 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

10.13 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined by the BLM and the permitee to determine the best available location.

10.14 Permittees will not trail livestock through element occurrences within the management area when soils are saturated.

10.15 Confine vehicle use to existing roads and tracks where element occurrences are present.

10.16 Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of element occurrences.

The following conservation measures will be implemented within EO 08. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will use aerial seeding and/or no-till drill only.
- BLM will not issue new land use authorizations.
- BLM will address restoration of the sagebrush-steppe habitat if degradation is found to be associated with authorized uses.
- BLM, permittees, and the CWMA cooperators will use only hand sprayers for herbicide applications.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will maintain closure to motorized recreational activities.
- The portion of this EO that is currently fenced within the Hammett 2 allotment north of the Old Oregon Trail Road and west of the Rye Grass Road will not be grazed for the 2004 grazing season.
- The permittee will erect a temporary electric fence before the beginning of the 2004 grazing season to keep cattle out of the vicinity of the priority element occurrence when the soils are saturated.

- The permittee, in conjunction with the BLM, will fence the west side of the Hammett Hill Road, from the southern allotment fence, north to the Old Oregon Trail Road. This fenced area will not be grazed when soils are saturated. The permittee will maintain the fence.

The following conservation measures will be implemented within EO 26. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will use aerial seeding and/or no-till drill only.
- BLM will not issue new land use authorizations.
- BLM will address restoration of the sagebrush-steppe habitat if degradation is found to be associated with authorized uses.
- BLM, permittees, and the CWMA cooperators will use only hand sprayers for herbicide applications.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will maintain closure to motorized recreational activities.
- The permittee, with the assistance of BLM, will fence the northwest corner of pasture 1 within Lower Alkali allotment, south of the Old Oregon Trail Road. This portion of fenced pasture will be maintained by the permittee and will not be grazed when soils are saturated.

The following conservation measures will be implemented within EO 58. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will use aerial seeding and/or no-till drill.
- BLM will maintain existing exclosure in southern portion of EO 58 to preclude grazing.
- BLM will not issue new land use authorizations.
- BLM will address restoration of sagebrush-steppe habitat if degradation is found to be associated with authorized uses.
- BLM, permittees, and the CWMA cooperators will use only hand sprayers for herbicide applications.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will maintain closure to motorized recreational activities within exclosure in southern portion of EO 58.
- Pasture 3, south of the Old Oregon Trail Road will be used to trail cattle through only in the fall if dry conditions exist, otherwise this pasture is fenced and grazing will not occur when the soil is saturated.
- Allotment containing this EO will be deferred to fall grazing and livestock will be herded away from the southern portion of the allotment where the EO exists during periods when soils are saturated.

11. Jarbidge Management Area

This MA is located in the Inside Desert Area, Owyhee County, approximately 50 miles south of Glenns Ferry. It encompasses all of the known slickspot peppergrass occurrences in the Inside Desert area, excluding the U.S. Air Force's Juniper Butte Enhanced Training Range. No occurrences are known from the intervening area between the MA and those north of the Snake River. The disjunct populations comprising the MA represent the southernmost known distribution limit of slickspot peppergrass. Occurrences within the MA are located on BLM and/or State land. The MA contains 23 occurrences (700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722) ranging in size from less than one to over 80 acres. Element occurrences 705, 706, 713, 722 and 715 are priority element occurrences. Wildfires have burned large segments of the Inside Desert, and much of the landscape has been reseeded with crested wheatgrass. However, some extensive, unburned sagebrush stands remain in places. Occurrences are located in unburned sagebrush, burned and seeded, and mosaic burn habitats. *See* **Map** at 156.

The primary threats and activities that impact the species in this management area include: fire, recreation, invasion of nonnative plant species, livestock trampling and land use authorizations and land exchanges.

The following conservation measures will be implemented across the management area:

Fire

Fire management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by May 1, 2004, that incorporates the following measures:

11.1 Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically the BLM and State (IDL), in granting authorization to use heavy ground moving equipment for fire suppression.

11.2 BLM will provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 500 acres.

11.3 Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats. Fire suppression tactics and prevention/suppression strategies will be specified in Fire Management Plans to be completed by September 2004.

11.4 BLM will ensure that restoration and rehabilitation with this management area emphasizes increased plant species diversity, including shrub and forbs, within existing crested wheat seedlings.

11.5 BLM with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.

Recreation

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

11.6 BLM and the State will manage OHV recreation to minimize impacts to occupied and suitable habitat.

11.7 BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.

Invasive Nonnative Plants Species

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

11.8 BLM in conjunction with the CWMA cooperators and the State will require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.

11.9 BLM will assign priority to treatment of nonnative invasive or weed species within the management area surrounding EO 705, 706, 713, 715, and 722.

11.10 BLM and the State will require restoration and rehabilitation to native conditions in trespass cases damaging sagebrush-steppe habitat.

Land Use Authorizations and Land Exchanges

General management standard operating procedures for LEPA will be issued in a BLM Instruction Memorandum by December 31, 2003, that incorporates the following measures:

11.11 The BLM and the State will require temporary or permanent project fencing to protect habitat adjacent to construction activities.

Livestock Trampling

BLM shall change the terms and conditions of all grazing permits within this management area to reflect and include the conservation measures for this management area and the priority occurrences within it.

11.12 Permittees will supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.

11.13 Permittees will report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.

11.14 To prevent and minimize the trampling impacts of livestock in element occurrences 700, 707, 712, 714, 716, 719, 720, 721 no grazing will occur in February or March. In April and May, the stocking level will be 20% of forage production. June through January, the stocking level will be 40% of forage production in native range and 50% of forage production in seeded range. A rest deferred rotation grazing system will be implemented

with April through May rested every other year, following completion of projects to support that deferred rotation system.

11.15 Split the Juniper Lake pasture and Draw Below Well pasture to implement a deferred rotation grazing system with April through May rested every other year.

11.16 No trailing through element occurrences within the management area when soils are saturated.

11.17 Permittee will work with BLM on relocation of troughs to benefit LEPA by moving troughs out of occupied habitat and facilitate implementation of this CCA with consideration focused on:
--trough in South Clover pasture 13S09ES2 moved to or near 12S09ES33
--trough in Juniper Lake pasture 13S09ES09 moved to or near 13S09ES04
--trough in Juniper Lake pasture 13S09ES08 moved to or near 13S08ES12
--trough in Juniper Lake pasture 13S09ES09 moved to or near 11S09ES33
--trough in the Draw Below Well pasture 13S09ES20 moved to or near 13S08ES13
--trough in the West Well pasture 13S09ES35 moved to or near 14S09ES27
--trough in the Draw Below Well pasture move from 13S09ES17 to or near 13S09ES16 (need easement from state IDL)
--trough in the Juniper Draw Allotment 13S10ES18 moved to or near 13S10ES30
--trough in the Juniper Butte Allotment 14S09ES01 moved to or near 14S10ES11
Other troughs may be relocated to benefit LEPA and facilitate the implementation of this CCA.

11.18 Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences. Supplement placing shall be considered in the annual LEPA tour with the BLM range specialist, based on the experience in the previous year's grazing season. Supplements that are attractants should be placed so that cattle will not trail through an element occurrence to the supplement or a water source. Attractants should be placed so that cattle are drawn away from the area of the element occurrence. Terms and Conditions within a permit will be adjusted to reflect the distance necessary for supplements from existing element occurrences and slickspots; however, requirements for maximum distance from water may be waived for a compelling reason involving minimizing impact on a slickspot or the plant. If the aforementioned is not possible, then existing sites will be examined to determine the best available location.

The following conservation measures will be implemented within EO 705, 706, 713, 722. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through the permittee's annual authorization and/or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM and the State will, upon reauthorization or renewal, address restoration of sagebrush-steppe ecosystem if degradation is demonstrated to be associated with authorized uses.
- BLM, permittees, and the CWMA cooperators will use only hand sprayers for herbicide applications.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.

- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- To prevent and minimize the trampling impacts of livestock in these priority element occurrences no grazing will occur in February or March. In April and May, the stocking level will be 20% of forage production. June through January, the stocking level will be 40% of forage production in native range and 50% of forage production in seeded range. A rest deferred rotation grazing system will be implemented with April through May rested every other year, following completion of projects to support that deferred rotation system.

The following conservation measures will be implemented within EO 715. These measures will be included in Instruction Memorandums covering general, fire and rehabilitation standard operating procedures to be issued by December 31, 2003 or through modification of grazing permits.

- BLM will not issue new land use authorizations.
- BLM and the State will, upon reauthorization or renewal, address restoration of sagebrush-steppe ecosystem if degradation is demonstrated to be associated with authorized uses.
- BLM, permittees, and the CWMA cooperators will use only hand sprayers for herbicide applications.
- BLM will require control of invasive non-native or weed species on new, renewing or amending right of way authorizations.
- BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.
- Within 10 ft no spray buffer zone weeds will only be treated by hand.
- BLM will seed or plant sagebrush seedlings in patches within EO 715 focusing on the unseeded portions of this area.
- To prevent and minimize the trampling impacts of livestock in this priority element occurrence no grazing will occur in February or March. In April and May, the stocking level will be 20% of forage production. June through January, the stocking level will be 40% of forage production in native range and 50% of forage production in seeded range. A rest deferred rotation grazing system will be implemented with April through May rested every other year, following completion of projects to support that deferred rotation system.

12. Jarbidge / Juniper Butte Management Area

This MA is located immediately adjacent to the Jarbidge Management Area. It is centered around Juniper Butte in the Inside Desert area. The MA includes all of the land within the boundaries of the U.S. Air Force's Juniper Butte Range. The MA contains a single large, approximately 1,098 acre slickspot peppergrass occurrence as described by the Air Force. The great majority of the MA has burned in the past. Although sagebrush is limited, rabbitbrush stands are common in the MA. Seeded grasses are also a common component of the vegetation. *See* **Map** at 156.

The primary threats and activities that impact the species in this management area include: fire, invasion of nonnative plant species, livestock trampling, and military training.

Conservation measures developed by the United States Air Force will be implemented across the management area by the Air Force in accordance with its Integrated Natural Resource Management Plan (INRMP).

The permittee will voluntarily institute the following conservation measures, under this agreement, on federal and state land within the management area:

- Delay turnout when soils are saturated.
- Delay changing pastures when soils are saturated.
- No gathering, herding or trailing when soils are saturated.
- Use supplements to minimize concentration and congregation of livestock.
- Prohibit livestock grazing in the study exclosure.
- Use only existing roads and two tracks for vehicle travel.
- Graze livestock to remove fine fuel as advised by the Air Force.

10. Level/Type of Impacts

When dealing with a plant species, take, as it is normally understood under the ESA, is an inappropriate term for the possible impacts that may occur. Rather, impacting a plant species under the ESA, §1538(a)(2), involves unlawfully removing and possessing a listed plant from areas under federal jurisdiction; maliciously damaging or destroying a listed plant species within any such area; or removing, cutting, digging up, or damaging or destroying a listed plant species in any other area in knowing violation of state law prohibiting such conduct or in violation of a state criminal trespass law.

A candidate species, however, does not receive protection under §1538(a)(2). Thus, in developing a CCA the primary objective is to mitigate, reduce or eliminate the possible impacts to the plant to the point that listing the species under the ESA is not necessary. Although the objective is to reduce or eliminate the impacts of threats and land-use activities, in achieving this objective, it is recognized that some impacts to the species will occur. Impacts from wildfire, recreation, livestock trampling, military training, development, and invasive species have been specifically addressed within the LEPA Consideration Zone, management areas, and priority element occurrences by varying the specificity and severity of the conservation measures to protect the diversity of the population and habitat.

11. Expected Benefits

Wildfire

- **Description of the threat.** Wildfire causes changes in the sagebrush-steppe ecosystem, increasing the potential for invasion by nonnative plant species. With wildfire there is also the possibility of changes in the natural fire regime, specifically the frequency, intensity, and size of fires across the sagebrush-steppe ecosystem.
- **Overview of conservation measures:**
  - — Throughout the LEPA consideration zone:
    - Make protection of known EOs priority over the surrounding Management Area;
    - BLM will incorporate SOP's that address conservation of LEPA into Fire Management Plans;

        - Aggressive fire suppression tactics will be utilized in management areas when priority EO's are threatened;
        - Private landowners and permit holders will coordinate with BLM to increase participation in fire mgmt;
        - Evaluate, create, and maintain fire breaks along areas where fires affect occupied and suitable habitat.
        - Implement habitat awareness training for personnel involved in fire;
        - Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible;
        - Distribute maps and inform fire crews about locations of MAs and EOs to avoid or minimize impacts from fire prevention and/or suppression activities;
        - Evaluate, create and maintain fuel breaks along areas where frequent fires can threaten habitat.
        - Use stationary and mobile vehicle wash points for BLM vehicles and equipment to reduce transport of undesirable plant materials.
    - In all Management Areas:
        - Provide adequate fire suppression coverage at all stations that respond to a given MA to achieve suppression objectives.
        - Protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitat.
- **Certainty of effectiveness.** Given experience and professional judgment there is a reasonable level of certainty that these conservation measures will be effective in reducing the impacts of wildfire and the suppression tactics used in fighting wildfire. The conservation measures are designed to reduce the impacts, namely the intensity, frequency, and size of natural and manmade fires by attempting to suppress 90% of fires to a specified amount of acres within each management area. Moreover, the conservation measures are designed to minimize the loss of habitat associated with fire suppression activities by implementing predetermined tactics to identify areas of habitat and keep fire suppression equipment from entering and damaging those areas. Effectiveness monitoring, through the adaptive management section of the CCA, will help determine the overall effectiveness of these conservation measures.

Restoration and Rehabilitation

- **Description of the threat.** Restoration and rehabilitation after a fire can impact the sagebrush-steppe ecosystem, specifically drill seeding can disturb the soil causing degradation or loss of habitat, loss of the seed bank, crushing plants, aiding the potential introduction of invasive, nonnative plant species.
- **Overview of conservation measures:**
    - Throughout the LEPA consideration zone:
        - Use seeding techniques that minimize soil disturbance such as no-till drills and rangeland drills with depth bands when restoration projects have potential to impact habitat.
        - Rest rehabilitated areas from land use activities to meet restoration objectives.

- Use native plant materials and seed unless use of non-native, non-invasive species would contribute beneficially to maintenance of habitat.
- If native pant materials and seed are not available, avoid use of invasive non-natives.
- Include forbs in seed mixes.

- **Certainty of effectiveness.** Some of these conservation measures were designed to minimize the loss of habitat associated with rehabilitation and restoration techniques and efforts. Given the amount of disagreement surrounding the issue of whether slickspot peppergrass is a disturbance species it will be hard to determine the effectiveness of these conservation measures immediately. Specific performance metrics and triggers will be developed by 6/30/04 to help determine the effectiveness of these conservation measures. The remaining conservation measures were designed to reduce the potential for invasion of nonnative plant species during rehabilitation after a fire, which will maintain the integrity of the sagebrush-steppe habitat. There is a reasonable level of certainty, based on experience and professional judgment that these measures will be effective in reducing the threat of invasive nonnative species by minimizing the available area for the nonnative species to germinate.

Off Highway Motorized Vehicles

- **Description of the threat.** Off-road motorized vehicles can cause degradation of habitat, which in turn can impact the seed bank, crush plants, and increase the potential for invasion of nonnative plant species.
- **Overview of conservation measures:**
  - Throughout the LEPA consideration zone:
    - Authorize organized recreation activities only in areas free of occupied and suitable habitat.
    - Educate recreationists on special status species and invasive weeds
    - Establish voluntary OHV wash points for dispersed recreations at key locations.
    - Require use of equipment wash for organized recreation events.
    - Increase law enforcement patrols to improve adherence to access management requirements and to discourage trespass.
  - In all management areas:
    - Manage OHV recreation to avoid impacts to occupied and suitable habitat.
    - Develop and install signs at entry points and key recreational points regarding the biology and conservation of this species
    - Permittees will use only existing roads and tracks for vehicle travel
  - Applies in certain Priority Element Occurrences w/in the MAs
    - Maintain exclosures to prevent ground disturbance from recreationists.
- **Certainty of effectiveness.** These conservation measures were designed to minimize or eliminate the degradation and loss of habitat associated with off highway motorized vehicles, which will maintain the integrity of the sagebrush-steppe habitat. Reasonable certainty exists that these measures will be effective in reducing and eliminating the impact of off-road vehicles on the plant and its habitat because they intensively manage and control access for vehicles to slickspot peppergrass habitat. Specific performance metrics and

triggers will be developed by 6/30/04 to help determine the effectiveness of these conservation measures.

Invasive Nonnative Plant Species

- **Description of the threat.** Nonnative plant species compete with slickspot peppergrass by invading the plant's habitat. This invasion can also cause a build-up of organic fuel that can increase the frequency, intensity and size of wildfires.
- **Overview of conservation measures:**
  - — Throughout the LEPA consideration zone:
    - Use seeding techniques that minimize soil disturbance such as no-till drills and rangeland drills with depth bands when restoration projects have potential to impact habitat.
    - Rest rehabilitated areas from land use activities to meet restoration objectives.
    - Use native plant materials and seed unless use of non-native, non-invasive species would contribute beneficially to maintenance of habitat.
    - If native pant materials and seed are not available, avoid use of invasive non-natives.
    - Include forbs in seed mixes
    - Educate recreationists on special status species and invasive weeds
    - Establish voluntary OHV wash points for dispersed recreations at key locations.
    - Require use of equipment wash for organized recreation events.
    - Use stationary and mobile vehicle wash points for BLM vehicles and equipment to reduce transport of undesirable plant materials.
    - Require all authorizations contain weed control measures.
    - Require portable wash racks at agency authorized construction sites.
    - Train weeds staff on LEPA and habitat recognition.
    - Increase research on elimination and control of invasive species
    - Require right of way holders or other related permit holders to establish 40-60% perennial cover depending on the location of the project after all ground disturbing activities
  - — In all management areas:
    - Protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitat.
    - Require weed spraying control measures
    - Assign priority to treatment of nonnative invasive or weed species with emphasis on treatment of areas around specific EO's.
    - Require restoration to native conditions in trespass cases damaging sagebrush-steppe habitat
  - — Applies in certain Priority Element Occurrences w/in the MAs
    - BLM will establish 10 ft spray buffer zones around slickspots for weed control activities
- **Certainty of effectiveness.** These conservation measures were designed to reduce, minimize and eliminate the establishment of invasive nonnative plant species, which will

maintain the integrity of the sagebrush-steppe habitat and slickspots. Specific performance metrics and triggers will be developed by 6/30/04 to help determine the effectiveness of these conservation measures.

Military Training and Activities

- **Description of the threat.** Military training activities can cause degradation of habitat, which in turn can impact the seed bank, crush plants, and increase the potential for invasion of nonnative plant species.
- **Overview of conservation measures:**
  - As specified in the IDARNG INRMP, applying in **management area 7 only**:
    - Continue to review plans for military training exercises in the management area and position them so they do not affect slickspot peppergrass and surrounding habitat
    - Use only native seed and broadcasting methods for restoration projects.
    - Require troops to view briefings regarding slickspot peppergrass
    - Install signs to protect population centers
    - Educate firefighters and provide a high level of fire protection during training activities Wash vehicles that come to train from areas greater than fifty miles away
- **Certainty of effectiveness.** These conservation measures were designed to maintain and enhance slickspot peppergrass habitat and mitigate the negatives effects of military training and other activities, thus there is a high degree of certainty that the measures will be effective in protecting the plant. Specific performance metrics and triggers have been developed to help determine the effectiveness of these conservation measures.

Livestock Trampling

- **Description of the threat.** Livestock trampling, especially when the soils are saturated, can cause degradation or loss of habitat, impacts to the seed bank, crushing of plants, introduction of nonnative plant species, and impacts to insect pollinators. Conflicting information and differing opinions surround this threat and the impact it has on the species.
- **Overview of conservation measures:**
  - In all management areas:
    - Prevent or eliminate livestock trampling through a variety of avoidance and mitigation measures.

Certainty of effectiveness. These conservation measures were designed to minimize or eliminate the impact of livestock trampling. Based on experience and professional judgment there is a reasonable degree of certainty that they will be effective because the measures will maintain the integrity of the sagebrush-steppe habitat and slickspots and prevent the crushing of plants. Specific performance metrics and triggers have been developed to help determine the effectiveness of these conservation measures.

12. Duration of the CCA

Every ten (10) years a status review will be completed to determine the necessary direction and whether substantial modifications to the CCA should follow. The CCA, and any commitments related to funding under FWS or BLM programs, will be in effect until a status review determines there further conservation efforts are no longer necessary.

13. Modification of the CCA

Any party may propose minor modifications or amendments to this CCA, by providing written notice to, and obtaining the written concurrence of, the other Parties. Such notice shall include a statement of the proposed modifications within 60 days of receipt of such notice. Proposed modifications will become effective upon the other Parties' written concurrence.

14. Remedies

Each party shall have all remedies otherwise available to enforce the terms of the CCA and the permit. No party shall be liable in damages for any breach of this CCA, any performance or failure to perform an obligation under this CCA or any other cause of action arising from this CCA.

15. Dispute Resolution

The Parties agree to work together in good faith to resolve any disputes, using dispute resolution procedures agreed upon by all parties.

16. Succession and Transfer

This CCA shall be binding on and shall inure to the benefit of the Parties and their respective successors and transferees. The rights and obligations under this CCA shall run with the ownership or management of the enrolled federal and state property and are transferable to subsequent Cooperators. As a party to the original CCA, the new Cooperator will have the same rights and obligations with respect to the enrolled federal and state property as the original Cooperator. The original Cooperator shall notify the BLM in writing of any transfer of ownership, so that the BLM can attempt to contact the new property owner, explain the baseline responsibilities applicable to the property, and seek to interest the new owner in signing the existing CCA or a new one to benefit *Lepidium papilliferum*.

17. Relationship to Other Agreements

This CCA in conjunction with the United States Air Force's Integrated Natural Resource Management Plan (INRMP) is designed to address the threats and activities that impact the species throughout Idaho. The participation of the United States Air Force is limited to implementing the provisions of the Air Force INRMP.

A conservation agreement with the City of Boise was completed in 1996 to conserve a small single occurrence of slickspot peppergrass in the Hulls Gulch Reserve in the foothills north of Boise, which includes minimal habitat for the species (Service, in litt. 1996). The Service and the City have another conservation agreement for a slickspot peppergrass element occurrence at the Boise Airport.

These agreements, in addition to the CCA and the INRMP, are taken as part of the holistic approach to conserving the species throughout southwestern Idaho.

18. No Third-Party Beneficiaries

This CCA does not create any new right or interest in any member of the public as a third-party beneficiary, nor shall it authorize anyone not a party to this CCA to maintain a suit for personal injuries or damages pursuant to the provisions of this CCA. The duties, obligations, and responsibilities of the Parties to this CCA with respect to third parties shall remain as imposed under existing law.

19. Notices and Reports

Any notices and reports, including monitoring and annual reports, required by this CCA shall be delivered to the persons listed below, as appropriate:

Director
Bureau of Land Management
Idaho State Office
1387 South Vinnell Way
Boise, ID 83709

Administrator
Office of Species Conservation
P.O. Box 83720
Boise, ID 83720-0195

Training Site Director
Idaho Army National Guard
4200 W. Ellsworth St. Bld. 669
Boise, ID 83705-8033

Ted Hoffman
RT 3, P.O. Box 648
Mountain Home, ID 83647

Bob Baker
P.O. Box 488
Mountain Home, ID 84647

20. Implementation Schedule

In addition to the conservation measures set forth in the Implementation Schedule two general administrative actions, as outlined below, will be implemented.

Coordinating Conservation Activities

Administration of this CCA will be conducted by the Slickspot Peppergrass Conservation Team (SPCT). The SPCT will consist of a representative of the FWS and designated representatives from the signatories to this CCA. The SPCT may include technical and legal advisors and other members as deemed necessary by the signatories.

Because the areas of concern covered by this CCA are located solely within the State of Idaho, and the species is designated as a candidate species under the ESA the designated SPCT leader will be the OSC, represented by the Administrator or his designee.

Authority of the SPCT shall be limited to developing and implementing conservation measures as necessary and appropriate and to address adaptive management issues, if necessary under section 20 of this agreement. The SPCT will meet on a semiannual basis or more often if necessary to report on the progress and effectiveness of the Implementation Schedule and agreement.

SPCT meetings will be open to interested parties. Minutes of the meetings and progress reports will be distributed to the SPCT, technical advisers, and to other interested parties upon request.

Funding Conservation Measures

The SPCT shall meet and review funding requests annually.

Funding for the CCA will be provided by a variety of sources. Federal, state and local sources will need to provide funding or to seek to secure funding to initiate procedures for the CCA.

Federal sources include, but are not limited to, the United States Fish and Wildlife Service, the Bureau of Land Management, the Department of Defense, and the United States Department of Agriculture.

State funding sources include, but are not limited to, direct appropriation of funds by the United States Congress, the Idaho Legislature, and state resource agencies.

Local sources of funding can be provided by counties, cities, and other supporting appropriations.

It is understood that all funding commitments made pursuant to this CCA are subject to approval by the appropriate local, state, or federal appropriators.

The implementation schedule is a guide for meeting the objectives discussed in the agreement above. This schedule indicates action numbers, action descriptions, duration of actions, responsible agencies, and estimated costs.

Key to Acronyms used in Implementation Schedule

FWS	United States Fish and Wildlife Service
BLM	United States Bureau of Land Management
State	State of Idaho (or individual departments when mentioned specifically, but not the Idaho Army National Guard)
IDARNG or National Guard	Idaho Army National Guard
PRV	Private Landowner
Permittee	Federal or State Permittee using a federal or state allotment
TBD	To be determined
Ongoing	Funded and continuing until action is no longer necessary for conservation
Base funding	Refers to BLM's annual stable operational budget

Table 2: Implementation Schedule for Conservation Measures

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENT
.01	Provide special status plant and habitat awareness training to fire resource advisors, engine operators, incident commanders, fire cooperators and fire operations supervisors	BLM & fire cooperators	TOTAL COST No additional cost	FY 04 Formalize course Issue IM by 5/1/04	FY 05 Continue on-going training	FY 06 Continue on-going training	FY 07 Train new crews	FY 08 Train new crews	
.02	Will make protection of known Element Occurrences (EOs) a priority over the surrounding Management Area on wildfires.	BLM & fire cooperators	BLM base funding	SOP for LEPA will be issued in an IM by 5/1/04					
.03	Develop LEPA SOP to be incorporated into fire management plans	BLM	BLM base funding	Issue IM by 5/1/04 Complete Fire Management Plan by 10/04					
.04	Evaluate, create & maintain fire breaks along areas where frequent fires affect occupied and suitable habitat	BLM	Reoccurring cost of $140/mile for brown stripping	Develop Proposed action and strategy BLM request funding	Develop NEPA & issue decision Implement	Annual Maintenance	Annual Maintenance	Annual Maintenance	
.05	Aggressive fire suppression tactics will be utilized in management areas when priority EO's are threatened.	BLM	BLM base funding	SOP for LEPA will be issued in an IM by 5/1/04.					
.06	Utilize stationary & mobile vehicle wash points for BLM vehicles & equipment to reduce transport of undesirable plant materials	BLM	$480,000 $20,000/yr Maint. costs	Issue IM by 12/31/03 BLM Request Budget by 11/03	$480,000	$20,000	$20,000	$20,000	
.07	Distribute maps and inform fire crews on locations of Management Areas and LEPA EO to maximize fire protection & to avoid/minimize impacts from fire prevention / suppression activities	BLM, State, fire cooperators	Reoccurring cost of $5,000	Issue IM by 5/1/04 Implement 4/04 BLM funding $10,000	$5,000	$5,000	$5,000	$5,000	

.08	Use minimal soil disturbance seeding techniques in occupied and potential habitat areas	BLM	BLM base funding	Issue IM by 12/31/03 On-going Formalize in SOP					
.09	Rest rehabilitation areas from activities until rehabilitation management objectives are met	BLM	BLM base funding	Issue IM by 12/31/03 On-going Current SOP					
.10	Use native plant materials and seed when possible during restoration and rehabilitation activities	BLM	BLM base funding	Issue IM by 12/31/03 On-Going Incorporate into SOP					
.11	Avoid use of invasive nonnative species for restoration or rehabilitation if native species are not available	BLM	BLM base funding	Issue IM by 12/31/03 On-going Incorporate into SOP					
.12	Include forbs in seed mixes to increase diversity & pollen sources for insect pollinators	BLM	BLM base funding	Initiate discussions w/potential partners Document agreement(s) as needed					
.13	Coordinate to increase participation in fire prevention, suppression, planning and rehabilitation.	Private landowners and permit holders, BLM							
.14	Focus access management onuse of marked designated routes and avoid creation of new routes when feasible	BLM	BLM base funding	On-going Incorporate into SOP					
.15	Educate recreationists on special status species & invasive weeds	BLM	$328,000 1 term & 2 seasonals & vehicle, ATVs	BLM request funding by 11/03 develop plan $10,000	Implement $93,000	$93,000	$93,000	$93,000	
.16	Establish voluntary OHV wash points for dispersed recreationists	BLM CWMA cooperators	Labor costs covered by term & seasonal users	BLM request funding by 11/03	Language in agreement & implement				

.17	Require the use of equipment wash points for organized events near occupied and suitable habitat	BLM	Action costs covered by permit holder	Issue IM by 12/31/03	Implement				
.18	Require complete botanical survey using USFWS Rare Plant Inventory Guidelines prior to soil disturbance authorizations	BLM, State	Reoccurring cost of $27,000 for seasonal employee	Issue IM by 12/31/03 On-going $27,000	$27,000	$27,000	$27,000	$27,000	
.19	Require all land authorizations contain weed control measures	BLM, State	BLM base funding State base funding	Issue IM by 12/31/03 On-going, add to renewals					
.20	Increase the frequency of land authorization compliance inspections	BLM, State	BLM base funding	Issue IM by 12/31/03 On-going formulate policy					
.21	Increase research for elimination & control of invasive species	BLM, State	$30 k per year	On-going, BLM request additional funding by 11/03	$30,000	$30,000	$30,000	$30,000	
.22	Require equipment portable wash racks at agency authorized construction sites	BLM	Costs covered by authorized user	Issue IM by 12/31/03	Implement				
.23	Train weed control staffs on LEPA & occupied and suitable habitat recognition	BLM, State, CWMA cooperators	BLM base funding	Issue IM by 12/31/03 Formalize training program	Implement				
.24	Require botanical survey for LEPA and occupied and potential habitat prior to authorizing herbicide use	BLM	$204,000	Issue IM by 12/31/03 Ongoing BLM request funds by 11/03	$45,000	$53,000	$53,000	$53,000	
.25	Acquire occupied and suit. habitat in land exchanges	BLM	As required	Identify potential areas	As opportunities arise	As opportunities arise	As opportunities arise	As opportunities arise	
.26	Protect remaining stands of sagebrush & native vegetation	BLM	BLM base funding	Issue IM by 12/31/03 On-going					

.27	Require all new, amending or renewing right of way and related permit holders to establish 40-60% perennial cover, as appropriate to location, after ground disturbing activities	BLM, State	BLM base funding	Issue IM by 12/31/03 On-going					
.28	Incorporate requirements that new, renewing or amending right of way holders contact the Land Management Agency for ground disturbing activities in occupied and suitable habitat, pre and post construction.	BLM, State	BLM base funding State base funding	Issue IM by 12/31/03 On-going					
.29	Increase law enforcement patrolsto discourage trespass	BLM Law enforce. cooperator	$25 k per year	Issue IM by 12/31/03 Ongoing Identify areas requiring additional consideration	Request funds for cooperator Amend. agreements	$25 k	$25 k	$25 k	
.30	Train permittees on LEPA & occupied and potential habitat recognition	BLM, State	BLM base funding State base funding						
.31	Increase compliance inspections	BLM	BLM base funding	Issue IM by 12/31/03					
.32	Conduct annual monitoring within all EO's in all MAs 1-11 to assess the effectiveness of the conservation measures. Protocols that expand the existing Habitat Integrity Index (HII) to encompass the monitoring required by this CCA will be in place for the 2004 monitoring season.	SPCT, ICDC,	$45,000 Funding Requested through Challenge Cost Share						
.33	Continue to survey lands within the LEPA Consideration Zone and report survey information to the CDC and incorporate the information into the CCA adaptive management strategy.	BLM, FWS, and the state	$30,000 annually	BLM Request funding by 11/03 $30,000	$30,000	$30,000	$30,000	$30,000	

.34	Aggressively work to prevent the risk of insect (i.e. Mormon crickets and grasshoppers) herbivory when outbreaks occur that may threaten existing element occurrences.	BLM, USDA Plant Protection and Quarantine (PPQ)	BLM base funding						
.35	Provide USDA PPQ with the location of *Lepidium papilliferum* habitat. Mormon cricket and grasshopper control in *Lepidium papilliferum* habitat will only include those methods that do not significantly impact the plant's pollinators.	BLM	BLM base funding						

NEW PLYMOUTH/CANYON COUNTY MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
1.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding State base funding	Issue IM by 5/1/04 Implement					
1.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 200 acres (reduced from 500 acres).	BLM	$900,000 Annually	Issue IM by 5/1/04 BLM request funds thru BLM budget process	$900,000	$900,000	$900,000	$900,000	These costs are also associated with and will cover 2.2, 5.2, 6.2, 7.2, 8.2, 9.2, 10.2, 11.2
1.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression cost notes in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					
1.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost notes in 1.2	Issue IM by 5/1/04					

NEW PLYMOUTH/CANYON COUNTY MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
1.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/03					
1.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	$160,000 Reoccur cost of $96,500 for maint.	Issue IM by 12/31/03 request budget design signs NEPA as needed	Make and install signs $145,000	Maint. $96,500	Maint. $96,500	Maint. $96,500	These costs are also associated with and will cover 2.6, 5.6, 6.6, 7.6, 8.6, 9.6, 10.6, 11.7
1.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action would also apply to MA-03 & MA-04	BLM & CWMA cooperators	$50,000 per year	April 04 integrate into weed agreement Request additional funds	Monitor & evaluate $50 k	Monitor & evaluate $50 k	Monitor & evaluate $50 k	Monitor & evaluate $50 k	These costs are also associated with and will cover 2.7, 5.7, 6.7, 7.7, 8.7, 9.7, 10.7, 11.8
1.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	$50 k per year	Issue IM by 12/31/03 April 04 integrate into weed agreement Request grants & establish priority	$50 k	$50 k	$50 k	$50 k	These costs will also cover CMs 2.8, 5.8, 6.8, 7.8, 9.8, 10.8, 11.9

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
1.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding	Issue IM by 12/31/03					
1.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/03					
1.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	
1.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Implement	Ongoing	Ongoing	Ongoing	Ongoing	
1.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions Modify grazing permit	Ongoing	Ongoing	Ongoing	Ongoing	
1.14	Fall and winter grazing. No trailing through EOs within the MA when soils are saturated.	Permittee	BLM base funding	NEPA and decisions Modify grazing permit					
1.15	Relocate a water trough currently adjacent to EO 68 to ¾ of a mile away to a new location.	Permittee BLM	BLM base funding	NEPA and decisions Modify grazing permit					
1.16	Relocate a water trough from existing location near EO 69 to a mile away to mutually agreed upon area.	Permittee BLM	BLM base funding	NEPA and decisions Modify grazing permit					

NEW PLYMOUTH/CANYON COUNTY MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
1.17	Use only existing roads and tracks for vehicle travel.	Permittee	BLM base funding	NEPA and decisions Modify grazing permit					

BOISE FOOTHILLS/BLM MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
2.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding State base funding	Issue IM by 5/1/04					
2.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 200 acres (reduced from 500 acres).	BLM	See cost noted in 1.2	Issue IM by 5/1/04 Request funds See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
2.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression Cost noted in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
2.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression Cost noted in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

BOISE FOOTHILLS/BLM MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
2.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/03	Implement policy				
2.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/03 Develop signs & budget submission establish priority locations	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
2.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/03 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
2.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/03 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

BOISE FOOTHILLS/BLM MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
2.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	BLM base funding	Issue IM by 12/31/03 Developing & implement policy when trespass occurs					
2.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/03					
2.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Implement					
2.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Implement					
2.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	Implement					
2.14	No trailing through EOs within the MA	Permittee	BLM base funding	NEPA and Decisions, modify grazing permit					
2.15	Fall and winter grazing. If soils become saturated permittee will move cattle away from element occurrences into an adjacent fenced field where the species and habitat are not present to prevent penetrating trampling.	Permittee	BLM base funding	NEPA and Decisions, modify grazing permit					

BOISE FOOTHILLS/BLM MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
2.16	No grazing in the allotment containing the element occurrence 56 this grazing season. Permittee will only graze during the fall during future grazing seasons and will move livestock to adjacent pastures to avoid penetrating trampling during periods when the soils become saturated.	Permittee	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding	NEPA and Decisions, modify grazing permit					
2.17	Use only existing roads and tracks for vehicle travel.	Permittees	None	NEPA and Decisions, modify grazing permit					

BOISE MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
5.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM and State base funding	Issue IM by 5/1/04 Implement					
5.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 20 acres.	BLM	See cost noted in 1.2	Issue IM by 5/1/04 request funds	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
5.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression Cost noted in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
5.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression Cost noted in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

BOISE MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
5.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/03	Implement policy				
5.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/03 request budget design signs NEPA as needed	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
5.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/03 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
5.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/03 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

BOISE MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
5.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding	Issue IM by 12/31/03					
5.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/03					
5.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	
5.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	
5.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
5.14	No trailing through EOs within the MA	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
5.15	Permittee will herd cattle away from vicinity of element occurrences within the management area when soils are moist and when soils become saturated move cattle to either fenced private land or outside of the management area to Sunnyside Spring/Fall allotment to prevent penetrating trampling.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					

BOISE MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
5.16	Use only existing roads and tracks for vehicle travel.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
5.17	Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of EO's.	Permittees	BLM base funding	NEPA and decisions-Modify grazing permit					

KUNA MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
6.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM and State Base funding	Issue IM by 5/1/04 Implement					
6.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from 200 acres).	BLM	See cost in 1.2	Issue IM by 5/1/04 request funds	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
6.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression cost noted in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
6.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost noted in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

KUNA MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
6.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/03	Implement policy				
6.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/03 request budget design signs NEPA as needed	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
6.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/03 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
6.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/03 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

KUNA MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
6.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	BLM base funding	Issue IM by 12/31/03					
6.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/03					
6.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Issue IM by 12/31/03					
6.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Issue IM by 12/31/03					
6.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
6.14	No trailing through EOs within the MA	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
6.15	Grazing for this management area will be limited to the fall grazing season. Permittee will herd cattle if the soils become saturated and penetrating trampling is likely to occur to one of three alternative sites, (two of the altemative sites are fenced), away from existing element occurrences.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					

KUNA MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
6.16	Use only existing roads and tracks for vehicle travel	Permittee	BLM base funding	NEPA and decisions- Modify grazing permit					
6.17	Modify sheep permits to restrict bedding, trailing and waters neat EO's	BLM	BLM base funding	NEPA and decisions- Modify grazing permit					

GOWEN FIELD/ORCHARD TRAINING AREA MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
7.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM and State base funding	Issue IM by 5/1/04					
7.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from 200 acres).	BLM	See cost in 1.2	Issue IM by 5/1/04 request funds	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
7.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression cost noted in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
7.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost noted in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

GOWEN FIELD/ORCHARD TRAINING AREA MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
7.5	Manage OHV recreation to minimize impacts to slick spots	BLM State	BLM base funding	Issue IM by 12/31/03	Implement				
7.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM State	See cost noted in 1.6	Issue IM by 12/31/03 Develop signs & budget submission $5,000 establish priority locations	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
7.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM , State CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/03 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
7.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, State, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/03 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

GOWEN FIELD/ORCHARD TRAINING AREA MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
7.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding	Issue IM by 12/31/03					
7.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	None	Issue IM by 12/31/03					
7.11	Require temporary or permanent project fencing to protect habitat adjacent to construction activities.	BLM State	None	Issue IM by 12/31/03					
7.12	Survey allotments for slickspots and plants, including existing occurrences	Permittee	BLM base funding	on-going	on-going	on-going	on-going	on-going	
7.13	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	BLM base funding	on-going	on-going	on-going	on-going	on-going	
7.14	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
7.15	No trailing through EOs within the MA	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
7.16	No trailing cattle through element occurrences within the management area when soils are saturated. When directed by the BLM livestock will be moved to an alternate area either outside of the management are or to private land to avoid CPT during periods when soils are saturated.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					

GOWEN FIELD/ORCHARD TRAINING AREA MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
7.17	Use only existing roads and tracks for vehicle travel	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
7.18	Modify sheep permits to restrict bedding, trailing and waters neat EO's	BLM	BLM base funding	NEPA and decisions-Modify grazing permit					
7.19	Prevent damage to and fragmentation of the late seral sagebrush-steppe habitat by controlling IDARNG vehicle traffic.	IDARNG	National Guard base funding	On-going					
7.20	Monitor vegetation trends in the late seral sagebrush habitat to determine if the vegetation composition remains stable under current uses and management.	IDARNG	National Guard base funding	On-going					
7.21	Monitor previously established transects and Habitat Integrity Index plots.	IDARNG	National Guard base funding	On-going					
7.22	Use only native species and broadcast seeding methods for any habitat restoration projects	IDARNG	National Guard base funding	On-going					
7.23	Manage military activities to protect slickspot peppergrass populations and surrounding habitat from training damage.	IDARNG	National Guard base funding	On-going					

7.24	Review plans for military training exercises in the management area and position them so they do not affect slickspot peppergrass populations and surrounding habitat	IDARNG	National Guard base funding	On-going					
7.25	Require troops to view environmental briefings before training and emphasize the importance or protecting slickspot peppergrass	IDARNG	National Guard base funding	On-going					
7.26	Install and maintain signs designating population centers	IDARNG	National Guard base funding	On-going					
7.27	Monitor the management area to ensure off-limits areas have been respected	IDARNG	National Guard base funding	On-going					
7.28	Minimize opportunities for the introduction of invasive and noxious plants on the Orchard Training Area by requiring pre-washing of non-local military vehicles entering the area	IDARNG	National Guard base funding	On-going					
7.29	Report to BLM areas of invasive and noxious plants as they are located	IDARNG	National Guard base funding	On-going					
7.30	Cooperate with BLM in the control of non-native noxious weeds	IDARNG	National Guard base funding	On-going					
7.31	Disallow the development of new roads through slickspot peppergrass habitat	IDARNG	National Guard base funding	On-going					
7.32	Continue the mutual support agreement with BLM for the suppression of wildfires in the National Conservation Area	IDARNG	National Guard base funding	On-going					

7.33	Inform firefighters of the location of important slickspot peppergrass habitat and implement minimum impact suppression tactics in those areas	IDARNG	National Guard base funding	On-going					
7.34	Provide a high level of rapid response fire protection during fire season when military activities are occurring on the Orchard Training Area	IDARNG	National Guard base funding	On going					
7.35	Implement the Integrated Natural Resources Management Plan (INRMP) for the Orchard Training Area	IDARNG	National Guard base funding	On going					

ORCHARD MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
8.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM and State base funding	Issue IM by 5/1/04					
8.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from 200 acres).	BLM	See cost in 1.2	Issue IM by 5/1/04	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
8.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression cost note in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
8.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost note in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

OCHARD MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
8.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/03	Implement policy				
8.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/03 Develop signs & budget submission $5,000 establish priority locations	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
8.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
8.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

ORCHARD MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
8.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	BLM base funding	Develop & implement policy when trespass occurs					
8.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/2003policy					
8.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Implement					
8.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Implement					
8.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
8.14	No trailing through EOs within the MA when soils are saturated	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit t					
8.15	Confine vehicle use to existing roads and tracks where element occurrences are present.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
8.16	Modify sheep permits to restrict bedding, trailing and waters neat EO's	BLM	BLM base funding	NEPA and decisions-Modify grazing permit					

MOUNTAIN HOME MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
9.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			None	Issue IM by 5/1/04					
9.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from 200 acres).	BLM	See cost in 1.2	Issue IM by 5/1/04	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
9.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression cost note in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
9.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost note in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

MOUNTAIN HOME MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
9.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/03					
9.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/03 Develop signs & budget submission $5,000 establish priority locations	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
9.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
9.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

MOUNTAIN HOME MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
9.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	BLM base funding	Develop & implement policy when trespass occurs					
9.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/2003policy					
9.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Implement					
9.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Implement					
9.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
9.14	No trailing through EOs within the MA when soils are saturated	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit t					
9.15	Confine vehicle use to existing roads and tracks where element occurrences are present.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
9.16	No grazing will be conducted in the area containing EO 50.	BLM Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					

GLENNS FERRY MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
10.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding	Issue IM by 5/1/04					
10.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 100 acres (reduced from 300 acres).	BLM	See cost in 1.2	Issue IM by 5/1/04 Request Funds	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
10.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM	Suppression cost noted in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
10.4	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost noted in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

GLENNS FERRY MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
10.5	Manage OHV recreation to minimize impacts to slick spots	BLM	BLM base funding	Issue IM by 12/31/2003					
10.6	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/2003 Develop signs & budget submission $5,000 establish priority locations	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
10.7	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
10.8	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

GLENNS FERRY MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
10.9	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM base funding	Issue IM by 12/31/2003					
10.10	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, County, Private Landowner	BLM base funding	Issue IM by 12/31/2003					
10.11	Survey allotments for slickspots and plants, including existing occurrences	Permittee	None	Implement					
10.12	Report survey information to the Conservation Data Center for the purposes of monitoring.	Permittee	None	Implement					
10.13	Place all supplements at least half (1/2) a mile from existing slickspots.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
10.14	No trailing through EOs within the MA when soils are saturated	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					
10.15	Confine vehicle use to existing roads and tracks where element occurrences are present.	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					

JARBIDGE MANAGEMENT AREA

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
11.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers in granting authorization to use heavy ground moving equipment for fire suppression.	BLM State	TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
			BLM and State base funding	Issue IM by 5/1/04					
11.2	Provide adequate fire suppression coverage at all stations that respond to this management area to meet management objectives with the intent to suppress ninety percent (90%) of fires to less than 500 acres.	BLM	See cost in 1.2	Issue IM by 5/1/04 Request funding	See cost in 1.2	See cost in 1.2	See cost in 1.2	See cost in 1.2	Costs associated with this conservation measure are covered in the costs displayed in 1.2
11.3	Land management agencies will protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitats.	BLM State	Suppression cost noted in 1.2	Issue IM by 5/1/04 Complete Fire Mang. Plan by 9/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2
11.4	Ensure that restoration and rehabilitation with this management area emphasizes increased plant species diversity, including shrub and forbs, within existing crested wheat seedlings.	BLM	BLM base funding	Issue IM by 12/31/2003					
11.5	Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible.	BLM in coordination with fire management cooperators	Suppression cost noted in 1.2	Issue IM by 5/1/04					Costs associated with this conservation measure are covered in the costs displayed in 1.2

JARBIGDE MANAGEMENT AREA (CONTINUED)

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
11.6	Manage OHV recreation to minimize impacts to slickspots	BLM	BLM base funding	Issue IM by 12/31/2003	Implement policy				
11.7	Educational signage at entry and key recreation points addressing biology/conservation of LEPA and other special status species	BLM	See cost noted in 1.6	Issue IM by 12/31/2003 Develop signs & budget submission $5,000 establish priority locations	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	See cost noted in 1.6	Costs associated with this conservation measure are covered in the costs displayed in 1.6
11.8	Require weed spraying control measures to include spraying when wind conditions are less than seven MPH, use large droplet spray only, reduced pump pressure and spot spraying This action additionally applies to MA-03 & MA-04	BLM & CWMA cooperators	See cost noted in 1.7	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request additional funds	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	See cost noted in 1.7	Costs associated with this conservation measure are covered in the costs displayed in 1.7
11.9	Assign priority to treatment of nonnative invasive species with emphasis on treating priority EO's 705, 706, 713, 715 and 722	BLM, CWMA cooperators	See cost noted in 1.8	Issue IM by 12/31/2003 April 04 integrate into weed agreement Request grants & establish priority	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	See cost noted in 1.8	Costs associated with this conservation measure are covered in the costs displayed in 1.8

ACTION	ACTION DESCRIPTION	RESPONS. PARTY	COST PROJECTIONS / ACTIONS						COMMENTS
			TOTAL COST	FY 04	FY 05	FY 06	FY 07	FY 08	
11.10	Require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat	BLM, State	BLM base funding	Issue IM by 12/31/2003					
11.11	Require temporary or permanent project fencing as appropriate to protect habitat adjacent to construction activities	BLM, State, County, Private Landowner	BLM base funding	Issue IM by 12/31/2003					
11.12	Supplement federal and state agency surveys and monitoring by surveying their allotments for slickspots and plants, including existing occurrences, during their normal course of business.	Permittee	No additional cost	Implement					
11.13	Report survey information to the Conservation Data Center for the purposes of aiding monitoring efforts and contributing to the CCA adaptive management strategy.	Permittee	No additional cost	Implement					
11.14	To prevent and minimize the trampling impacts of livestock in element occurrences 700, 707, 712, 714, 716, 719, 720, 721 no grazing will occur in February or March. In April and May, the stocking level will be 20% of forage production. June through January, the stocking level will be 40% of forage production in native range and 50% of forage production in seeded range. A rest deferred rotation grazing system will be implemented with April through May rested every	Permittee	BLM base funding	NEPA and decisions-Modify grazing permit					

	other year, following completion of projects to support that deferred rotation system. .								
11.15	Split the Juniper Butte pasture and Draw Below Well pasture creating a pasture for LEPA and preclude grazing in this pasture when soils are saturated.	BLM Permittee	BLM base funding	NEPA and decisions-Modify grazing permit	Install				
11.16	No trailing through element occurrences within the management area when soils are saturated.	Permitee	No additional cost	Implement					
11.17	Permittee will work with BLM on relocation of troughs to benefit LEPA by moving troughs out of occupied habitat and facilitate implementation of this CCA with consideration focused on: --trough in South Clover pasture 13S09ES2 moved to or near 12S09ES33 --trough in Juniper Lake pasture 13S09ES09 moved to or near 13S09ES04 --trough in Juniper Lake pasture 13S09ES08 moved to or near 13S08ES12 --trough in Juniper Lake pasture 13S09ES09 moved to or near 11S09ES33 --trough in the Draw Below Well pasture 13S09ES20 moved to or near 13S08ES13 --trough in the West Well pasture 13S09ES35 moved to or near 14S09ES27 --trough in the Draw Below Well pasture move from 13S09ES17 to or near 13S09ES16 (need easement from state IDL) --trough in the Juniper Draw Allotment 13S10ES18 moved to or near 13S10ES30	BLM Permittee	BLM base funding	NEPA and decisions-Modify grazing permit	Relocate				

	--trough in the Juniper Butte Allotment 14S09ES01 moved to or near 14S10ES11 Other troughs may be relocated to benefit LEPA and facilitate the implementation of this CCA.								
11.18	Permittees shall place salt/supplements to minimize trampling of LEPA and of slickspots, respectively. Supplements will be placed at least 1/2 mile, preferably 3/4 mile from occurrences.	BLM Permittee	BLM base funding	NEPA and decisions-Modify grazing permit	Implement				

ELEMENT OCCURRENCE SPECIFIC CONSERVATION MEASURES

PRIORITY	ACTION DESCRIPTION **These actions apply to EO 08, 18, 20, 21, 26, 27, 28, 30, 32, 48, 51, 52, 57, 58, 65, 66, 70, 705, 706, 713, 715, 722**	ACTION GROUP	FY-04	FY-05	FY-06	FY-07	FY-08	TOTAL COST
	Treat weeds by hand within 10 ft no spray buffer zone	BLM & State	BLM Issue IM by 12/31/03					Cost covered by Seasonal
	Establish 10 ft spray buffer zones for weed control activities	BLM & State	BLM Issue IM by 12/31/03					Cost covered by Seasonal
	Require control of invasive non-native or weed species on new, renewing, or amending right of way authoriz.	All groups	Issue IM by 12/31/03					Cost covered by grantee
	Use hand sprayers only for herbicide applications	All groups	Issue IM by 12/31/03					Base funding
These actions apply to EO 08, 18, 20, 21, 26, 27, 28, 30, 48, 51, 52, 57, 58, 66, 70, 705, 706, 713, 715, 722								
	Do not issue new land use authorizations	BLM	Issue IM by 12/31/03					BLM and State base funding
These actions apply to EO 08, 26, 58, 66								
	Maintain closure to motorized recreational activities within exclosure	BLM	Issue IM by 12/31/03					BLM base funding
These actions apply to EO 08, 26, 30, 58, 66, 70, 705, 706, 713, 715, 722								
	Address restoration of SSE ecosystem if degradation is demonstrated to be associated with authorized uses	BLM	Issue IM by 12/31/03					Cost borne by permit holder

These actions apply to EO 12, 38, 52, 65								
	Concentrate ecosystem restorations efforts within and adjacent to EO	BLM	Issue IM by 12/31/03					BLM request funding in 2004
These actions apply to EO 18, 20, 30, 57								
	Evaluate the need for and implement as appropriate motorized vehicle restrictions	BLM	Issue IM by 12/31/03					BLM base funding
These actions apply to EO 21, 51								
	Address restoration of slickspot habitat if degradation is found to be associated with authorized uses, including the rehabilitation associated with cinder and gravel mining operation	State	Issue IM by 12/31/03					Cost borne by permit holder
These actions apply to EO 715								
	Seed or plant sagebrush seedlings in patches focusing on the unseeded portions	BLM	Issue IM by 12/31/03					BLM rehab. funding
	No grazing will occur in February or March. In April and May, the stocking level will be 20% of forage production. June through January, the stocking level will be 40% of forage production in native range and 50% of forage production in seeded range. A rest deferred rotation grazing system will be implemented with April through May rested every other year, following completion of projects to support that deferred rotation system.	BLM	NEPA Issue grazing decision					
	Create an exclosure for this priority EO encompassing approximately 110 acres	BLM						BLM base funding
These actions apply to EO 58								
	Maintain existing exclosure from livestock use.	BLM	Issue IM by 12/31/03					BLM base funding
	Pasture 3, south of the Old Oregon Trail Road will be used to trail cattle through only in the fall if soils are not saturated, otherwise this pasture is fenced and grazing will not occur when the soil is saturated.	BLM	NEPA, Issue grazing decision					BLM base funding
These actions apply to EO 21								
	Establish closure to off road motorized recreational activities	State	Issue IM by 12/31/03					State Base Funding
	Use conservation recommendations developed for LEPA conservation Strategy and Agreement	State	Issue IM by 12/31/03					State Base Funding
These actions apply to EO 12								
	Develop & install ed signage at entry and key restriction access points regarding biology and conservation of slickspot peppergrass and SSE habitat	BLM	Issue IM by 12/31/03					Costs addressed in Recreation
These actions apply to EO 66								

	Maintain existing exclosure to prevent grazing within and in the vicinity of the EO	BLM	Issue IM by 12/31/03					BLM base funding
These actions apply to EO 70								
	Permittee will request modification for Fall/Winter use only.	Permittee	NEPA, Issue grazing decision					BLM base funding
These actions apply to EO 52, 70								
	Permittee will move livestock when soils become moist and prior to saturation to a fence pasture away from the EO	Permittee	NEPA, Issue grazing decision					BLM base funding
These actions apply to EO 32, 48								
	Cattle will be herded away from EO. When soils are moist cattle will be herded to fenced private lands or outside of MA	BLM	NEPA, Issue grazing decision					BLM base funding
These actions apply to EO 27, 28, 32, 48								
	Supplements and water resources will be placed 1 mile from EO	BLM	NEPA, Issue grazing decision					BLM base funding
These actions apply to EO 27, 28								
	Permittee will graze within these element occurrences when the soils are dry. If precipitation occurs causing the soil to become tracking wet and the ten day forecast predicts more rain the livestock will be removed from the vicinity of the priority element occurrences	BLM	NEPA, Issue grazing decision					BLM base funding
These actions apply to EO 51								
	BLM will install a fence and the permittee will maintain the fence, creating a pasture containing this element occurrence, which will not be grazed during periods when the soils are saturated	BLM	NEPA, Issue grazing decision					BLM base funding

These actions apply to EO 08								
	The permittee will erect a temporary electric fence before the beginning of the 2004 grazing season to keep cattle out of the vicinity of the priority element occurrence when the soils are saturated.	BLM permittee	NEPA, Issue grazing decision					BLM base funding
	Permittee/BLM will fence the west side of the Hammett Hill Road, from the southern allotment fence, north to the Old Oregon Trail Road. This fenced area will not be grazed when soils are saturated. The permittee will maintain the fence.	BLM permittee	NEPA, Issue grazing decision					BLM base funding
This action applies in EOs 705, 706, 713, 722								
	No grazing will occur in February or March. In April and May, the stocking level will be 20% of forage production. June through January, the stocking level will be 40% of forage production in native range and 50% of forage production in seeded range. A rest deferred rotation grazing system will be implemented with April through May rested every other year, following completion of projects to support that deferred rotation system.	BLM	NEPA Issue grazing decision					
These actions apply to EO 26								
	Permittee/BLM will fence the northwest corner of pasture 1 within Lower Alkali allotment, south of the Old Oregon Trail Road. This portion of fenced pasture will be maintained by the permittee and will not be grazed when soils are saturated	BLM permittee	NEPA, Issue grazing decision					BLM base funding

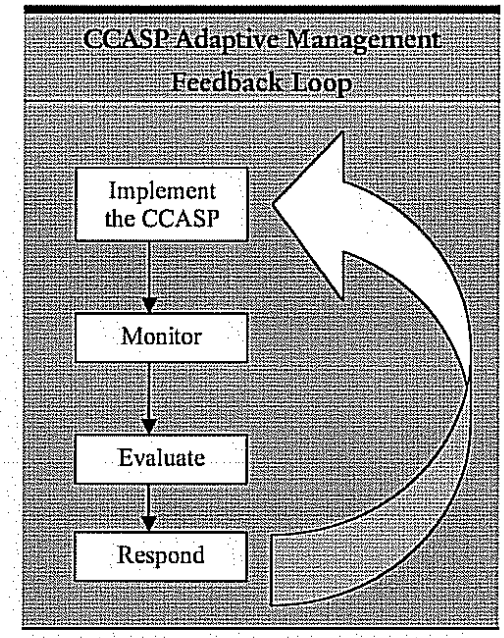
21. Adaptive Management and Monitoring Commitments

Adaptive management is a strategy used in conservation planning whereby:

1) the goal for the plan is set,
2) conservation measures are identified to achieve the goal including addressing threats to the species,
3) conservation measures are implemented by the BLM, State, and cooperators,
4) information is collected to evaluate whether the goal is being met and threats addressed through implementation of those measures, and
5) management is adjusted, as necessary, to ensure success in achieving the goal.

This adaptive management strategy results in a feedback loop that incorporates better scientific understanding into everyday management practices (see **Figure 2**).

Figure 2.



The Candidate Conservation Agreement for Slickspot Peppergrass (CCASP) is a concentrated undertaking whereby the State of Idaho, IDARNG, Nongovernmental Cooperators and BLM implement certain standards and practices with the expectation of achieving a desired goal. This **goal** is broadly defined.
Conserve *Lepidium papilliferum* (slickspot peppergrass) and its habitat while protecting the long-term sustainability of predictable levels of land use in southern Idaho.

Specific threats to achieving this goal have been identified and need to be addressed through the CCASP (see **Table 1**, page 18). The CCASP relies on the conservation measures with the LEPA Consideration Zone, Management Areas, and the priority element occurrences to ensure that the goal is met and the threats addressed.

The conservation measures were constructed to address threats to the species. The BLM and legal mechanisms of enforcement available to the BLM and State of Idaho provide a reasonable certainty the conservation measures will be implemented and that the objectives of the agreement will be met. Ideally, the plan will be successful and no management responses will be required. Complete certainty that any agreement will be successful, however, is difficult if not impossible to achieve. It would require either having extremely conservative, and perhaps draconian, conservation measures that may only provide negligible benefits or would mean postponing conservation of the species until perfect knowledge was obtained. Neither of these approaches is desirable or practical. Thus adaptive management, under this agreement, is a balance between strong commitments at the outset and a procedure for improving them in the future should that become necessary.

This adaptive management section is organized as follows:

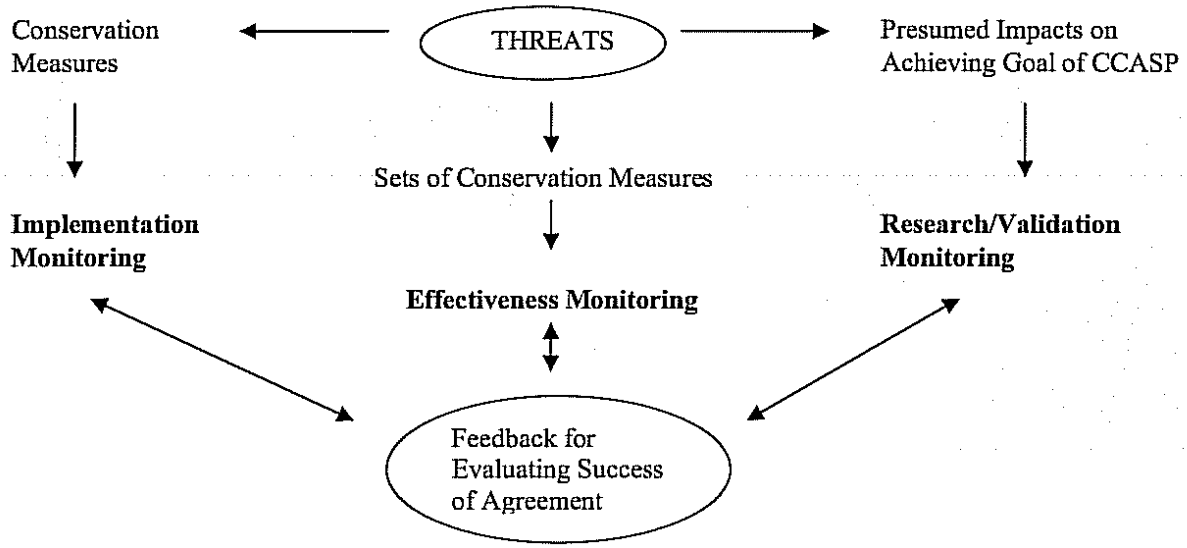
- **Monitoring**: What information will be collected and how will it be collected to guide the adaptive management process
- **Evaluation**: How will the monitoring data be used to guide adaptations to the CCASP
- **Response**: What procedures will be used when the Slickspot Peppergrass Conservation Team (SPCT) as established on page 66 needs to agree on effective and appropriate adaptations

Monitoring

The first step in the CCASP adaptive management strategy is to collect information on how well the agreement and species are doing. Monitoring can generally be defined as a series of observations or measurements over time.

Three primary types of monitoring will generate feedback for evaluating the success of the agreement to the FWS, BLM, and the cooperators over the life of the CCASP: implementation monitoring, effectiveness monitoring and validation monitoring. Implementation monitoring will provide information to gauge compliance with individual conservation measures. Were the conservation measures implemented? Effectiveness monitoring involves determining if the conservation measures, grouped into several sets of measures designed to address threats, are, in fact, achieving the goal and objectives of the CCASP. Were the conservation measures effective? In addition, validation monitoring, entailing research into fundamental assumptions of the CCASP, will be undertaken. Does new information necessitate a change in conservation strategy?

Figure 3. Summary of the CCASP Approach to Monitoring.



Implementation Monitoring

Implementation monitoring involves simply determining whether or not the actions described through the conservation measures were carried out as planned. Implementation monitoring has been described as asking the question, "Did they do what they said they would do?" Did the BLM, State, and/or cooperators comply with or implement the conservation measure? Implementation monitoring is generally carried out as an administrative review and does not require any parameter

measurements. **Table 4** lists conservation measures that will be monitored to ensure implementation.

Effectiveness Monitoring

Effectiveness monitoring is aimed at determining if the implementation of activities has achieved the desired goal and objectives. In other words, the question that follows, "did they do what they were supposed to do?" is the question, "did those actions have the desired effect?" Did the project, program, or action achieve the desired goal? Can the effect, positive or negative, can be measured?

The CCASP approach to effectiveness monitoring is to focus on how well sets of conservation measures address the threats that have been identified as impediments to achieving the goal and objectives. Our desire is the have the threats reduced, mitigated or eliminated through the conservation measures that are implemented as a result of this CCASP. Effectiveness monitoring focuses on those threats that were identified to be particularly significant by the Fish and Wildlife Service; that is wildfire, invasive species, livestock trampling and restoration and rehabilitation activities. In addition, effectiveness monitoring addresses the threat associated with OHVs to assess whether investments in the conservation measures are accomplishing intended objectives.

One of the conservation measures specifically deals with effectiveness monitoring (CM .32). Implementation of this conservation measure builds on the monitoring of element occurrences that has been done in the past through the ICDC (see page 14), providing the information needed for effectiveness monitoring. The habitat integrity index (HII) will be expanded to ensure measures needed to accomplish effectiveness monitoring are included. The number of transects will be increased to ensure all the EO's are represented. In Table 4, the effectiveness monitoring that has been built from HII is called HII plus to distinguish it from monitoring that has occurred prior to this CCASP.

Research/Validation Monitoring

There is some uncertainty implicit in some of the assumptions underlying the threats that have been identified. Are the threats that have been identified (see **Table 1**, page 18), in fact, impediments to achieving the goal of this CCASP? Empirical studies are lacking and data are incomplete. This uncertainty is addressed through research. The research can be considered validation monitoring which assesses the accuracy of the underlying management assumptions. There are presumed cause/effect relationships (for example, it is presumed that trampling of slickspots by livestock when soils are saturated adversely affects the integrity of the slickspot microsite, degrading the habitat for slickspot). These cause and effect relationships are assumed in the design of the CCASP but not proven. It is, therefore, appropriate to ensure research is undertaken that addresses this cause/effect relationship and, based on that research, conservation measures may be revised.

The six primary validation monitoring/research projects are described below:

Table 3. Research/Validation Monitoring Projects

Threat	Description of Task	Task Duration	Responsible Parties (* = lead)	Cost (Per year and Total)	Comments
Habitat fragmentation/ Genetic diversity, fire, and fire rehabilitation threats	Name: Include LEPA in ongoing research to restore perennial grasses and shrubs in sagebrush steppe ecosystems Specific Description: Ongoing research is currently examining methods to restore sagebrush steppe ecosystems. Examining the potential impacts of restoration techniques to slickspot habitats has been proposed for incorporation into these studies, which will be initiated in fall of 2003. Justification: Various treatments such as use of herbicides, introduction of additional carbon into the ecosystem, and prescribed burning are a few of the experimental treatments currently being examined by researchers to control nonnative annual plants. Effects of these treatments to slickspot habitats will be determined so management decisions regarding their use in LEPA habitats can maximize conservation of LEPA. Conservation Measures Addressed: Fire and invasive nonnative plant species conservation measures, including fire rehabilitation and vegetation restoration.	2+ years	USGS, OSU, USFS research branch	$20k/yr Total = $40k	Research currently being conducted by David Pyke of USGS and Oregon State University on BLM lands. Study sites have not been documented as being occupied by LEPA but do contain slickspots.
All threats, including ground disturbing threats	Name: Seed bank and seed production study. Specific Description: Describe biology and dynamics of LEPA seed bank in slickspot soils, and investigate seed productivity of LEPA plants. Develop sampling regime for determining presence of LEPA seed bank and seeds of other plant species within slickspots. Establish presence of LEPA seed bank in slickspots with and without documented LEPA above ground plants, and document structural and chemical characteristics of these slickspot soils. Justification: Will investigate field sampling methods to determine presence/absence of LEPA seed bank across range. Will increase knowledge of slickspot habitat parameters required for LEPA occupancy. Provide information about habitat characteristics of slickspot soils that are preferred by LEPA. Conservation Measures Addressed: All ground disturbance conservation measures, including fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling.	ongoing, 4 more years of study	IDARNG*, USFS research lab, NRCS	$35k/yr Total = $140k	NRCS to conduct the soil characteristics research for IDARNG. Research conducted by Dr. Susan Meyer. Study will help to identify suitable slickspot types for LEPA reintroduction and assist with project clearances
All ground disturbing threats	Name: Nonnative annual plant seed germination / biological soil crust study. Specific Description: Examine germination of nonnative annual seeds in soils with and without biological soil crusts. Justification: Loss of biological soil crusts within slickspots may allow for establishment of nonnative plants such as cheat-grass, increasing competition for resources with LEPA. Determining the role of biological soil crusts in the establishment of nonnative plants will assist managers in decisions to authorize ground disturbing activities within LEPA habitats. Conservation Measures Addressed: All ground disturbance conservation measures, including fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling.	2+ years First phase completed	BSU*, BLM	$20k/yr Total = $40k	Research results were published in 2003. Research conducted by Dr. Marcelo Serpe.

Table 3. Research/Validation Monitoring Projects

Threat	Description of Task	Task Duration	Responsible Parties (* = lead)	Cost (Per year and Total)	Comments
All ground disturbing threats	Name: Field study of LEPA seed germination and establishment with/without ground disturbance. Specific Description: Examine germination of LEPA seeds in slickspot soils with and without surface disturbance. Note that current study design does not provide for depth of disturbance to extend below the restrictive layer of slickspots. Justification: It is not established whether ground disturbance enhances or reduces the successful germination and survival of LEPA. Determining the role of ground disturbance in the establishment of LEPA will assist managers in decisions to authorize potentially ground disturbing activities within LEPA habitats. Conservation Measures Addressed: All ground disturbance conservation measures, including fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling.	Ongoing 5+ year study; year 1 completed	USAF	Yearly cost = N/A Total cost = N/A	Research being conducted by Tony Palazzo of US Army Corps of Engineers Cold Regions Research and Engineering Laboratory
Livestock trampling	Name: Study on effects of livestock trampling on LEPA and slickspots Specific Description: Examine effects of grazing treatments on LEPA density and vigor, slickspot integrity, and soil surface disturbance, bulk density, and permeability. Justification: Establishing the potential effects of livestock trampling on LEPA and slickspot habitat will assist in making management decisions in LEPA habitat. Conservation Measures Addressed: Livestock trampling conservation measures.	Ongoing 5 year study; 1 year of baseline data collection completed	USAF, Idaho Dept of Ag, Univ. of Idaho	Congress. add on to ID Dept. Ag = $50k for duration of study USAF yearly cost N/A	Fencing and pilot study completed by USAF in 2002. Baseline vegetation data collected by U of I and USAF in 2003. Research conducted by Dr. Steve Bunting.
All threats, including ground disturbing threats	Name: Physical and chemical properties of slickspot soils documented as supporting LEPA and slickspots without LEPA on Juniper Butte Range. Specific Description: Conduct structural and chemical analysis of slickspot soils that are documented as supporting LEPA and slickspot soils that are not known to support LEPA. Justification: Provide information about habitat characteristics of slickspot soils that are preferred by LEPA. Conservation Measures Addressed: All ground disturbance conservation measures, including fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling.	Ongoing 5+ year study; 1 year completed	USAF*	Yearly cost = N/A Total cost = N/A	USAF research being conducted by Tony Palazzo of US Army Corps of Engineers Cold Regions Research and Engineering Laboratory Studies will assist in identification of suitable slickspot soil types for LEPA reintroduction and assist in project clearances

Other Research and Monitoring

A list of additional funded research is available through the FWS. The findings of these studies may be incorporated as part of the adaptive management framework if appropriate. At the end of this agreement is a list of priority, unfunded research and monitoring projects that could also be incorporated into the adaptive management framework if funding becomes available and it is appropriate. *See* **Table 6** at 138.

Evaluation: Applying Adaptive Management

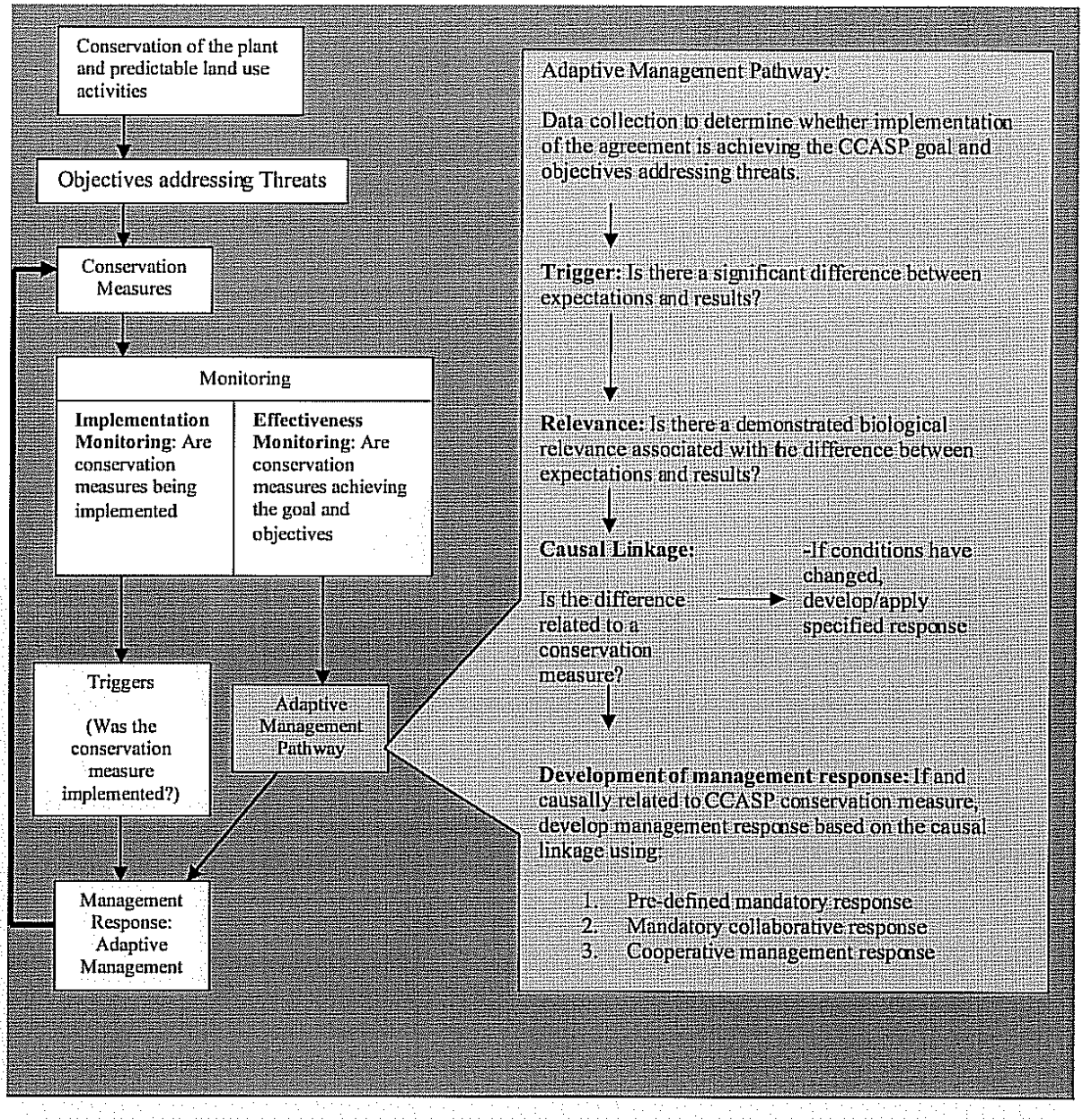
Once the implementation monitoring indicates that the conservation measure has been accomplished and the effectiveness monitoring has been conducted to determine if the measure

made a difference, the SPCT will evaluate the information that has been gathered to determine whether the goal and objectives of the agreement are being met and what modification if any might be needed to maintain the effectiveness of the CCASP. It is anticipated that it may be several years before validation monitoring (research) enters into the evaluation but it too will be used to make adjustments, as appropriate, to the CCASP.

The SPCT will use the CCASP Implementation Framework **(Figure 4)** as a guide for the management decisions that may be needed. The framework conceptually forms a working feedback loop starting with the CCASP goal. The elements of the Implementation Framework are as follows:

- **The conservation of slickspot peppergrass and its habitat and the maintenance of predictable levels of land use.** This is the overriding goal of the agreement from which the objectives are developed.
- **Conservation Objectives.** The conservation objectives represent the intent of the CCASP to address the threats that have been identified; threats that have the potential to preclude achievement of the goal.
- **Conservation Measures.** For each threat and its associated conservation objectives, conservation measures are identified. Conservation measures are designed to reduce, mitigate, or eliminate that threat.
- **Performance Metrics.** A unit of measurement is established to evaluate the success of the actions performed as a result of implementation of conservation measures.
  - **Implementation Monitoring**: is the conservation measure being implemented? For these, the performance metric will be straightforward. Was the action taken or was it not?
  - **Effectiveness Monitoring**: Are the actions associated with a set of conservation measures effective in achieving the intended objective(s) associated with identified threats? This is generally a numeric measurement. For the purpose of this agreement some of the specific measurements for adaptive management purposes are generalizations and will be refined by in collaboration with FWS through implementation of this CCASP.
- **Triggers.** For each performance metric, a threshold is established and serves as an indicator, or trigger, at which point the adaptive management process starts. A trigger is selected because it alerts the SPCT and FWS that a result of a conservation measure may be biologically relevant or likewise irrelevant. Therefore, it must be measurable in a time frame that is meaningful for informing management changes. Triggers derived from effectiveness monitoring can be changed through the collaborative management process described in further detail below.
- **Management Response.** After a trigger is tripped for a given performance metric, the management response process begins. In the case of conservation measures evaluated under implementation monitoring, the step from trigger to management response is direct and requires no interpretation or decision making or agreement process between the FWS, BLM, State, IDARNG and the nongovernmental cooperators. The responsible party will implement the conservation measure as directed by the agreement. In contrast, when a trigger is tripped based on information from the effectiveness monitoring component, the decision on a management response requires the implementation of the Adaptive Management Pathway (*see* below).

Figure 4. Implementation Framework (Feedback Loop)



The Adaptive Management Pathway

When a step is taken from trigger to management response because of the input of either effectiveness or validation monitoring, the feedback loop involves an extra layer of scientific rigor to ensure that the appropriate questions are asked and that a scientifically based management response is formulated. This is referred to as an Adaptive Management Pathway. *See* **Figure 3**. This provides assurance to FWS that new scientific information will lead to science-based changes in management and assures BLM and other cooperators that any need to implement more restrictive or costly measures is the conclusion of a scientifically rigorous process.

- **Relevance**. The first step after a trigger has been met is to determine if the observation has any relevance in order to determine if the unexpected result is affecting the goal or objectives of the CCASP. While triggers were chosen as early warning indicators that infer relevance, some were also chosen because of the difficulty of establishing specific scientific metrics given the lack of data for many of the threats, or because it was easy to measure in a time frame that allowed informed, meaningful changes to conservation measures. Thus, some triggers may or may not actually indicate biological relevance; however, the reason for making a determination of biological relevance, especially as data becomes available, is to validate that the trigger is really detrimental to the plant or its habitat before requiring costly management changes or restrictions.

  For the CCASP, a relevance determination will be used to identify whether the tripping of a trigger negatively affects the conservation of the plant or its habitat, indicating that the agreement is falling short of meeting the goal or objectives. The determination of relevance shall be made mutually by the FWS, BLM, State, IDARNG and nongovernmental cooperators, with the assistance of technical staff, considering any data or definitive information (e.g. peer-reviewed scientific articles from professional journals) that can inform a determination of whether an observed trigger negatively affects slickspot peppergrass. The intent of a biological relevance determination is to ensure that the CCASP conservation measures will not be subject to changes unless change is needed to achieve the CCASP goal or objectives.

- **Causal Linkages**: If a trigger is met and relevance has been demonstrated, a determination of the causal link is the next step taken in order to determine the source of the change. Two sources of change are possible. One source may be changes in conditions that do not result from BLM, State, IDARNG or the nongovernmental cooperators activities. Examples of these changed conditions include catastrophic wildfires that during the course of a fire season engulf significant acreage within the LEPA Consideration Zone or severe drought conditions that necessitate implementation of federal drought relief across the LEPA Consideration Zone. The SPCT will need to address the significance of the changed condition promptly after the changed condition is discovered. A second source of change, observed through the monitoring data, could be the inadequacy of the CCASP conservation measures.

Response

After monitoring data are evaluated in accordance with the Implementation Framework appropriate management responses need to be developed and then incorporated into the everyday practice of the CCASP, thus completing the feedback loop.

Kinds of Management Responses. Three general approaches are outlined below for adapting management.

1. **Pre-defined mandatory management response.** In some cases, we can specify at the outset of the agreement the exact terms of the management responses that are necessary if a specific condition, or trigger, is tripped. This is most easily done with respect to those measures in the table detailing conservation measures that would be evaluated using implementation monitoring.
2. **Mandatory collaborative management response.** This type of management change is mandatory if a specific triggering condition is observed, but the CCASP does not specifically describe in advance exactly what the management response or conservation measure will be. The FWS, BLM, and cooperators must then mutually develop a response. While the response requires collaboration and agreement, it is not open-ended or undefined. Instead, the CCASP provides procedures and standards through the ***adaptive management pathway*** for developing a response. A mandatory collaborative change culminates upon the agreement of the BLM and cooperators to institute some management change. To the extent possible data from research (the validation monitoring) are used to develop an appropriate management response, assuming that data is available. If that data is not available, the SPCT may need to adjust conservation measures based on professional judgment, preliminary research findings and research that exists at the time of the decision.
3. **Cooperative management response.** As the term of the agreement proceeds, it is anticipated that clear opportunities for improvement will become evident. These opportunities are not dependent on a trigger being tripped, but are simply observations that there is a way to alter conservation measures in a fashion that better achieves CCASP goals and objectives. A cooperative management response is designed to take advantage of these opportunities.

It is important to note that adaptive management is more than a "one-way street" in conservation planning. That is, information and experience obtained from research and monitoring may suggest the cooperator can meet the goal or objectives with more, or less, restrictive conservation measures. Thus, monitoring data that demonstrate the goal or objectives of the agreement are being met shall be the basis for adopting relaxed practices. Exceeding the goal or objectives of the CCASP can be the basis for the following:

- A proposal by a cooperator to collaboratively relax the adaptive management triggers;
- A cooperative management response proposal by a cooperator for more economical approaches to effective conservation measures;
- A demonstrated opportunity to shift resources to areas where success may be less certain.

Important Economic Considerations

- **Demonstrated causal links and tailored solutions**. As described above, management responses triggered under adaptive management must be based upon demonstrated causal links, so little is left to speculation concerning whether a problem exists or a solution is required. Increased scientific understanding as the agreement progresses should be applied by the SPCT to making conservation measures respond and change according to that better

understanding. Management responses should improve the certainty of the agreement being equal or better for conservation while at the same time being equal or better economically for the cooperators. As new information is obtained either through monitoring or research under the CCASP or independently that suggests some portion of the conservation strategy may require correction, resources and effort must be directed at resolving that problem in a site-specific manner. It is standard business practice to solve problems in a specific manner without expending scarce resources on approaches that are not cost-effective. It is also the trend of public policy and regulatory reform efforts to design regulations to be more site-specific, prescribing specific regulations to address specific situations. This is the best approach to minimize risk to resources while controlling costs.

- **Shifting resources to meet new demands.** An important economic principle for BLM and the cooperators under a functional adaptive management strategy involves the ability to reallocate resources if necessary. When conservation measures, indicated by the adaptive management, require an additional commitment of resources, they will first be addressed by reallocating resources from other areas where it can be demonstrated that the BLM or cooperators are exceeding the goal or objectives of the agreement, to the extent that such latitude is available. If this latitude is not available, the BLM and cooperators will seek additional funding from federal, state, local or private organizations or adjust the conservation measures accordingly to meet the required commitments under the agreement. In addition, savings obtained by reducing commitments in response to new information can be reapportioned to supplement other areas where there is concern or uncertainty about responding to a trigger being tripped. The principle of seeking reallocation of resources first, where possible, when management changes are needed will be used when developing the management responses described below as "mandatory collaborative" or "cooperative".

Table 4. Conservation Measures Evaluated Using Implementation Monitoring

Conservation Measure	Description
.01	BLM and Fire Cooperators will expand on and continue to provide special status plant and habitat awareness training to fire resource advisors, Incident Commanders, Engine Operators and Fire Operations Supervisors. Training will be formalized through issuance of an Instruction Memorandum by December 31, 2003.
.02	BLM and Fire Cooperators will make protection of known Element Occurrences (EO's) a priority over the surrounding Management Area on wildfires. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by May 1, 2004
.03	BLM will refine and formalize Standard Operating Procedures (SOP's) that address conservation of LEPA to be incorporated into Fire Management Plans. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.04	BLM will evaluate, create and maintain fuel breaks along areas where frequent fires can threaten occupied and suitable habitat (for schedule see **Table 2**).
.05	Aggressive fire suppression tactics will be utilized in management areas when priority EO's are threatened. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by May 1, 2004.
.06	BLM will utilize stationary and mobile vehicle wash points for BLM vehicles and equipment to reduce transport of undesirable plant material. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.07	BLM and Fire Cooperators will distribute maps and inform fire crews on locations of Management Areas and element occurrences to maximize fire protection and to avoid or minimize impacts from fire prevention and/or suppression activities. Fire management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.08	BLM will use seeding techniques that minimize soil disturbance such as no-till drills and rangeland drills equipped with depth bands on rangeland drills when restoration projects have the potential to impact occupied and suitable habitat. Fire rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.

.09	BLM will continue to rest rehabilitated areas from land use activities to meet fire rehabilitation management objectives, defined through the Emergency Stabilization and Restoration plans. "Interagency Burned Area Emergency Stabilization and Rehabilitation Handbook", Version 2.0 Draft, currently being revised, Department of Interior, Departmental Policy Guidance (manual)
.10	BLM will use native plant materials and seed whenever practicable during restoration and rehabilitation activities unless use of non-native, non-invasive species would contribute beneficially to maintenance and protection of occupied and suitable habitat. Fire rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.11	If native plant materials and seed are not available, BLM will avoid use of invasive non-native species for restoration or rehabilitation activities. Fire rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.12	BLM will include forbs in seed mixes to increase diversity and pollen sources for insect pollinators. Fire rehabilitation standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.13	The BLM and private landowners and permit holders will actively explore methods to increase participation in fire prevention, suppression, planning and rehabilitation.
.14	BLM will authorize organized recreation activities only in areas free of occupied and suitable habitat. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.15	BLM will educate recreationists on special status species & invasive weeds focusing on occupied and suitable habitat areas.
.16	BLM, in cooperation with Cooperative Weed Management Areas (CWMA) cooperators, will establish voluntary OHV wash points for dispersed recreationists at key locations.
.17	BLM will require the use of equipment wash for organized recreation events. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.18	BLM will require complete botanical survey using USFWS Rare Plant Inventory Guidelines within occupied and suitable habitat prior to soil disturbance authorizations. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.19	BLM will require that all authorizations contain weed control measures. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.20	BLM will increase the frequency of compliance inspections associated with land use permits in occupied and suitable habitat areas. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003
.21	BLM will increase research on elimination and control of invasive species.
.22	BLM will require portable wash racks at agency authorized construction sites. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.23	BLM and CWMA cooperators will train weeds staff on LEPA and occupied and suitable habitat recognition. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.24	BLM will require complete botanical surveys for LEPA and its habitat prior to authorizing herbicide use. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.25	BLM will acquire occupied and suitable habitat in land exchanges when the opportunity arises.
.26	BLM will strive to conserve remaining stands of sagebrush or native vegetation in making land management and project level decisions. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.27	BLM will require that new, renewing or amending right of way holders or other related permit holders to establish 40 - 60% perennial cover depending on the location of the project after all ground disturbing activities. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.28	BLM will incorporate requirements that right of way holder contact the Land Management Agency for ground disturbing activities in occupied and suitable habitat, pre and post construction. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.29	BLM and Law Enforcement Cooperators will modify agreements to increase Law Enforcement patrols to improve adherence to access management requirements and to discourage trespass.
.30	BLM will train permittees on LEPA and occupied and suitable habitat recognition.
.31	The BLM will conduct periodic compliance inspections during soil disturbance projects and increased inspections during use periods to prevent impacts on occupied and suitable habitat. General management standard operating procedures for LEPA will be issued in an Instruction Memorandum by December 31, 2003.
.32	The Slickspot Peppergrass Conservation Team, through the State of Idaho Conservation Data Center (CDC) will conduct annual monitoring within all EO's in all MA's 1-11 to assess the effectiveness of the conservation measures. Protocols that expand the existing Habitat Integrity Index (HII) to encompass the monitoring required by this CCA will be in place by May, 2004.

.33	BLM, FWS, and the state will continue to survey lands within the LEPA Consideration Zone and report survey information to the CDC and incorporate the information into the CCA adaptive management strategy.
.34	BLM in cooperation with the US Department of Agriculture (USDA) Plant Protection and Quarantine (PPQ) will aggressively work to minimize the risk of insect (i.e. Mormon crickets and grasshoppers) herbivory when outbreaks occur that may threaten existing element occurrences.
.35	BLM will provide USDA PPQ with the location of *Lepidium papilliferum* habitat. Mormon cricket and grasshopper control in *Lepidium papilliferum* habitat will only include those methods that do not significantly impact the plant's pollinators.
1.1, 2.1, 5.1, 6.1, 7.1, 8.1, 9.1, 10.1, 11.1	Potential impacts to known locations of occupied LEPA habitat, in contrast to potential benefits of more immediate fire suppression, will be considered by Land Managers, specifically BLM and the State, in granting authorization to use heavy ground moving equipment for fire suppression.
1.4, 2.4, 5.4, 6.4, 7.4, 8.4, 9.4, 10.4, 11.4	BLM in coordination with fire management cooperators will implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible. Interagency Standards for Fire and Fire Aviation Operations, issued annually.
1.6, 2.6, 5.6, 6.6, 7.6- 11.6	BLM will develop and install educational signage at entry points and key recreational points regarding the biology and conservation of this species and other special status species.
1.7, 2.7, 5.7, 6.7, 7.7- 11.7	BLM in conjunction with the CWMA cooperators will require weed spraying control measures including, spraying when wind conditions are less than 7 miles per hour, using large droplet spray only, with reduced pump pressure, and spot spraying.
1.8, 2.8, 5.8, 6.8, 7.8-11.8	BLM, permittee, and CWMA cooperators will assign priority to treatment of nonnative invasive or weed species with emphasis on treating priority element occurrences within each management area immediately.
1.9, 2.9, 5.9, 6.9, 7.9-11.9	BLM and the State will require rehabilitation and restoration to native conditions in trespass cases damaging SSE habitat.
1.10, 2.10, 5.10, 6.10, 7.10-11.10	The BLM and the State will require temporary or permanent project fencing to protect habitat adjacent to construction activities.
7.22	Continue to use only native species and broadcast seeding methods for any habitat restoration projects.
7.24	Continue to review plans for military training exercises in the management area and position them so they do not affect slickspot peppergrass populations and surrounding habitat.
7.25	Continue to require troops to view environmental briefings before training and emphasize the importance or protecting slickspot peppergrass.
7.26	Continue to install and maintain signs designating population centers.
7.29	Continue to report to BLM areas of invasive and noxious plants as they are located.
7.31	Continue to disallow the development of new roads through slickspot peppergrass habitat.
7.33	Continue to inform firefighters of the location of important slickspot peppergrass habitat and implement minimum impact suppression tactics in those areas.
7.35	Continue to implement the Integrated Natural Resources Management Plan (INRMP) for the Orchard Training Area.

Effectiveness Monitoring linked to Metrics, Triggers and Management Response

This is a tool to evaluate the effectiveness of conservation measures in achieving conservation goals. It is used to specify when a management response is required, the proposed response (new conservation measure) or process for implementing a new conservation measure (the Adaptive Management Pathway). Conservation measures that are evaluated under the implementation monitoring (**Table 4**) provision of this agreement are **not necessarily** included. They will be

monitored to determine if they were implemented timely and properly, and if not the response will be to immediately implement the measure or devise a plan for achieving compliance as soon as possible. An adaptive strategy for the conservation measures proposed for management areas 3 and 4 are not included in the following analysis; however, as soon as commitment for these measures are secured they will be added.

The conservation measures were designed to effectively reduce, mitigate or eliminate the threats and their impacts to the species, thereby accomplishing the goal and objectives of the agreement. In **Table 5** conservation measures are briefly summarized; the reader is referred to the body of the CCASP for the specific and complete wording of each conservation measure.

Table 5. Effectiveness Monitoring Table

Threat: WILDFIRE				
Objectives	Conservation Measures	Performance Metrics	Triggers (If....)	Management Response (then...)
Reduce intensity, frequency, and size of natural and human caused fires	**Applies in all Management Areas (MAs)** Provide adequate fire suppression coverage at all stations that respond to a given MA to achieve suppression objectives.	Using the BLM fire data base, determine if fires in a given MA burn in excess of the upper limit of acres specified in the conservation measure.	Suppress 90% of fires: In MA 1, 2 to less than 200 acres. In MA 5 to less than 20 acres. In MAs 6, 7, 8, 9, 10 to less than 100 acres. In MA 11 to less than 500 acres.	BLM, FWS, State and nongovernmental cooperators examine under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended.
	Throughout the LEPA Consideration Zone: Make protection of known EOs priority over the surrounding Management Area BLM will incorporate SOP's that address conservation of LEPA into Fire Management Plans Aggressive fire suppression tactics will be utilized in management areas when priority EO's are threatened. Private landowners and permit holders will coordinate with BLM to increase participation in fire mgmt. Evaluate, create, and maintain fire breaks along areas where fires affect occupied and suitable habitat.	Using the BLM fire data base, examine the fire history in a given MA and patterns of fire occurrence.	Specific triggers will be developed	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of triggers by 6/30/04 The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway).
Minimize loss of habitat associated with fire suppression activities	**Throughout the LEPA Consideration Zone:** Implement habitat awareness training for personnel involved in fire. Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot	Conduct post-fire monitoring using the HII transects to determine if conservation measures avoided	Specific triggers will be developed.	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04 The SPCT

	peppergrass, where feasible. Distribute maps and inform fire crews about locations of MAs and EOs to avoid or minimize impacts from fire prevention and/or suppression activities. Evaluate, create and maintain fuel breaks along areas where frequent fires can threaten habitat.	impact to slickspots and minimized impact to adjacent habitat.		will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended
Reduce the potential for invasion of nonnative plant species from wildfire(also see items specific to the threat of invasion of nonnative plant species, listed below)	**Applies in all MAs** Protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitat.	Fires in a given MA burn in excess of the upper limit of acres specified in the conservation measure.	Suppress 90% of fires: **In MA 1, 2** to less than 200 acres. **In MA 5** to less than 20 acres. **In MAs 6, 7, 8, 9, 10** to less than 100 acres. **In MA 11** to less than 500 acres.	BLM FWS, State and nongovernmental cooperators examine under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended.
	Throughout the LEPA Consideration Zone: Implement habitat awareness training for personnel involved in fire. Distribute maps and inform fire crews about locations of MAs and EOs to avoid or minimize impacts from fire prevention and/or suppression activities Implement Minimum Impact Suppression Tactics in fire suppression to minimize ground disturbance impacts to slickspot peppergrass, where feasible. Use stationary and mobile vehicle wash points for BLM vehicles and equipment to reduce transport of undesirable plant materials.	Conduct post-fire monitoring using the HII transects to determine if conservation measures avoided impact to slickspots and minimized impact to adjacent habitat.	Specific triggers will be developed	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended

Threat: RESTORATION AND REHABILITATION				
Objective	Conservation Measures	Performance Metrics	Triggers (If....)	Management Response (then...)
Minimize the loss of habitat associated with rehabilitation and restoration techniques and efforts *Minimize the establishment of invasive nonnative plant species (also see items specific to this threat, listed below)*	**Throughout the LEPA Consideration Zone:** Use seeding techniques that minimize soil disturbance such as no-till drills and rangeland drills with depth bands when restoration projects have potential to impact habitat. Rest rehabilitated areas from land use activities to meet restoration objectives. Use native plant materials and seed unless use of non-native, non-invasive species would contribute beneficially to maintenance of habitat. If native pant materials and seed are not available, avoid use of invasive non-natives. Include forbs in seed mixes	Using the HII Plus transects, determine if restoration and/or rehabilitation projects have occurred and if so, determine if there is physical evidence of rehab within the slickspots and the magnitude (% surface area impacted) of that physical evidence	Specific triggers will be developed.	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended
		Using the BLM's ESR database, identify restoration and/or rehabilitation projects that have occurred in the vicinity of EO's and the project's seed mix. Using the HII Plus vegetation inventory protocol, inventory for perennial forbs, grasses and shrubs, and identify to the extent possible if species present were the result of seeding. Within slickspots, inventory for perennial forbs, grasses and shrubs and identify if species present were the result of seeding.	Specific triggers will be developed by 6/04.	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended
Threat: OFF HIGHWAY MOTORIZED VEHICLES				
Objectives	Conservation Measures	Performance	Triggers	Management

		Metrics	(If....)	Response (then...)
Minimize or eliminate the degradation and loss of habitat associated with off highway motorized vehicles	**Applies in certain Priority Element Occurrences w/in the MAs** Maintain exclosures to prevent ground disturbance from recreationists. **Applies in all MAs** Manage OHV recreation to avoid impacts to occupied and suitable habitat. Develop and install signs at entry points and key recreational points regarding the biology and conservation of this species Permittees will use only existing roads and tracks for vehicle travel	Using the HII Plus transects, determine if there is evidence of OHV or other vehicle tracks present in the slickspots.	Specific quantifiable triggers will be developed by 6/04.	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended
	LEPA Consideration Zone: Authorize organized recreation activities only in areas free of occupied and suitable habitat. Educate recreationists on special status species and invasive weeds Establish voluntary OHV wash points for dispersed recreations at key locations. Require use of equipment wash for organized recreation events. Increase law enforcement patrols to improve adherence to access management requirements and to discourage trespass.	Using the HII Plus transect locations and determine if OHV or other vehicles go off-road in the area near (ca 20 m radius) the slickspots.	Specific quantifiable triggers will be developed by 6/04.	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended
Threat: INVASIVE NONNATIVE PLANT SPECIES				

Objectives	Conservation Measures	Performance Metrics	Triggers (If....)	Management Response (then...)
Minimize establishment of invasive nonnative plant species	**Applies in all MAs** Protect remnant blocks of native vegetation, especially late seral sagebrush-steppe habitat. Require weed spraying control measures Assign priority to treatment of nonnative invasive or weed species with emphasis on treatment of areas around specific EO's. Require restoration to native conditions in trespass cases damaging sagebrush-steppe habitat	Metrics will be developed.	Specific triggers will be developed by 6/04.	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended
	LEPA Consideration Zone: Use seeding techniques that minimize soil disturbance such as no-till drills and rangeland drills with depth bands when restoration projects have potential to impact habitat. Rest rehabilitated areas from land use activities to meet restoration objectives. Use native plant materials and seed unless use of non-native, non-invasive species would contribute beneficially to maintenance of habitat. If native pant materials and seed are not available, avoid use of invasive non-natives. Include forbs in seed mixes Educate recreationists on special status species and invasive weeds Establish voluntary OHV wash points for dispersed recreations at key locations. Require use of equipment wash for organized recreation events. Use stationary and mobile vehicle wash points for BLM vehicles and equipment to reduce transport of	Using HII Plus transects, determine if nonnative invasive or weed species are present in the slickspots. Determine density (percent cover) of nonnative invasive or weed species present in the slickspots. Using HII Plus	Specific triggers will be developed by 6/04. Specific triggers	BLM and the State under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended BLM and the State

	undesirable plant materials. Require all authorizations contain weed control measures. Require portable wash racks at agency authorized construction sites. Train weeds staff on LEPA and habitat recognition. Increase research on elimination and control of invasive species Require right of way holders or other related permit holders to establish 40-60% perennial cover depending on the location of the project after all ground disturbing activities **Applies in all Priority Element Occurrences w/in the MAs** BLM will establish 10 ft spray buffer zones around slickspots for weed control activities.	vegetation sampling strategy for habitat surrounding slickspots and where rehabilitation and/or restoration projects have occurred, determine presence of annual forbs, native perennial grasses, and shrubs	will be developed by 6/04	under the Adaptive Management Pathway (Pathway) create a set of metrics and triggers by 6/30/04. The SPCT will evaluate and review the final triggers under the Adaptive Management Pathway (Pathway). If a trigger is tripped (after development) BLM, FWS, State and nongovernmental cooperators will examine the issue under the Adaptive Management Pathway (Pathway). If relevance is demonstrated and cause is clear; i.e. the difference is related to a conservation measure, the conservation measure(s) will be revised or amended

Threat: MILITARY TRAINING AND ACTIVITIES				
Objectives	Conservation Measures	Performance Metrics	Triggers (If....)	Management Response (then...)
Maintain and enhance slickspot peppergrass habitat	**Applies in MA 7** Continue to review plans for military training exercises in the management area and position them so they do not affect slickspot peppergrass and surrounding habitat; use only native seed and broadcasting methods for restoration projects. Require troops to view briefings regarding slickspot peppergrass; install signs to protect population centers; educate firefighters and provide a high level of fire protection during training activities; wash vehicles that come to train from areas greater than fifty miles away.	Continued compliance as area is monitored on a regular basis and training activities are planned in coordination with the IDARNG Range and Natural Resources Staff.	Monitoring indicates an element occurrence has been damaged or surrounding habitat is declining due to military training activities.	BLM, State and IDARNG must develop a cooperative management response for the year following the increase in disturbances.
Mitigate the negative effects of military training and other activities		Continued compliance as area is monitored on a regular basis and training activities are planned in coordination with the IDARNG Range and Natural Resources Staff.	Monitoring indicates an element occurrence has been damaged or surrounding habitat is declining due to military training activities.	BLM, State and IDARNG must develop a cooperative mngt. response for the year following the increase in disturbances.

Threat: LIVESTOCK TRAMPLING				
Objective(s)	Conservation Measures	Performance Metrics	Triggers (If....)	Management Response (then...)
Minimize the impact of ground disturbance caused by livestock penetrating	**Applies in all MA's where livestock trampling is addressed** No trailing through EOs within the MA when soils are saturated Place all supplements away from existing slickspots in accordance with conservation measure.	The effectiveness of conservation measures to reduce, eliminate, or mitigate penetrating trampling by livestock will be measured and	Ten percent (10%) of the slickspots sampled along the HII monitoring transect have penetrating trampling across ten percent (10%)	Following the first instance, BLM and the permittee(s) will develop a mandatory collaborative response. If there is a second consecutive year of penetrating trampling, the BLM and permittee

trampling of slickspots during periods when soils are saturated	**MA 1** Fall and winter grazing only. If soils become saturated permittee will move cattle away from element occurrences to prevent penetrating trampling. Relocate water sources (EO 68 and EO 69) Maintain existing exclosure **MA 2** Fall and winter grazing. If soils become saturated permittee will move cattle away from element occurrences into an adjacent pastures to prevent penetrating trampling. **MA 5** Herd cattle away from vicinity of EO's when soils are moist and when soils are saturated move to either fenced private land or outside the MA. Sheep trailing permits restrict bedding, trailing or watering herds within ½ mile of Eos. **MA 6** Grazing limited to fall/winter grazing season, beginning approximately on October 1. Permittee will herd cattle away from priority occurrences if the soils become moist and will relocate cattle if soils are or are likely to become saturated and penetrating trampling is likely to occur to one of three alternative sites, away from existing priority EO's. Sheep trailing permits restrict bedding, trailing or watering herds within ½ mile of EO's. **MA 7** Livestock will be moved to an alternate area either outside of the management area or to private land to avoid penetrating trampling during periods when soils are saturated. Delay turnout when soils are saturated. Sheep trailing permits restrict bedding, trailing or watering herds within ½ mile of EO's Graze area around EO 27 and 28 only when soils are dry; remove livestock from the vicinity when precipitation causes soil to be come tracing wet and additional rain is forecasted. **MA 8** Sheep trailing permits restrict bedding, trailing or watering herds within ½ mile of EO's	gathered in conjunction with the annual HII monitoring program. The HII protocol samples a subset of the slickspots within an element occurrence. Penetrating trampling occurs when the underlying clay layer in the slickspot microsite soil profile is exposed. The presence and abundance of penetrating trampling will be measured at each of the slickspots sampled along the HII transect.	of their surface area, additional ocular evaluation of the EO will be conducted in conjunction with BLM and the permittee to determine if the sample is representative of the whole EO. If so the trigger has been tripped.	will implement the pre-defined mandatory response; that is BLM shall build a fence creating a LEPA pasture or build and maintain exclosures which closely surround the EO where the penetrating trampling occurred.

	EO 30: fall/winter grazing. **MA9** EO 50: Livestock grazing will be managed to avoid potential for impacts EO 21: Livestock grazing will be managed to avoid potential for impacts through exclosure EO 51: Develop pasture including this EO and avoid grazing when soils are saturated. **MA 10** Sheep trailing permits restrict bedding, trailing or watering herds within ½ mile of EO's. EO 08: Fencing will be used to keep cattle out of the vicinity of the EO when soils are saturated. EO 26: Fencing will be used to keep cattle out of the vicinity of the EO when soils are saturated. EO 58: Grazing will not occur when soils are saturated. **MA 11** Redefine pastures creating a LEPA pasture for LEPA; no grazing in this pasture when soils are saturated. Relocate troughs to benefit LEPA. EO's 700, 705, 707, 712, 714, 716, 719, 720, 721: no grazing in February or March. Light utilization in April and May and moderate utilization from June to January. EO's 705,706,713,722: no grazing in February or March. Light utilization in April and May and moderate utilization from June to January MA 12 Prohibit grazing in exclosure. Delay turnout or changing pastures when soils are saturated			

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23. Responsibilities of the Parties

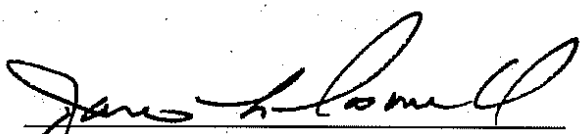
To meet the goals and objectives of this CCA, the parties agree to undertake their respective responsibilities and conservation measures set forth in CCA. Where responsibility for undertaking a specific future action has not been assigned or becomes apparent through the adaptive management process, the parties agree to implement such measures through addendums or revisions to this agreement.

IN WITNESS WHEREOF, THE PARTIES HERETO have, as of the last signature date below, executed this Candidate Conservation Agreement.

12-05-03

State Director
U.S. Bureau of Land Management

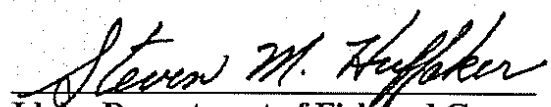
Date



12/5/03

Governor's Office of Species Conservation
Cooperator

Date



12-05-03

Idaho Department of Fish and Game
Cooperator

Date

12/5/03

Idaho Department of Lands
Cooperator

Date

12/5/03

Idaho National Guard
Cooperator

Date

T W Hoffman

12-05-03

Nongovernmental Cooperator Representative | **Date**

12/5/03

Nongovernmental Cooperator/Permittee **Representative** | **Date**

Charles Lyons

12-5-03

Nongovernmental Cooperator/Permittee | **Date**

12-05-03

Nongovernmental Cooperator/Permittee | **Date**

Skip Owen

Dec. 1st 2003

Nongovernmental Cooperator/Permitee | **Date**

Bert Bodett

12-05-03

Nongovernmental Cooperator/Permittee | **Date**

Chet Brashear

12-05-03

Nongovernmental Cooperator/Permittee | **Date**

Preston Lord

Dec 1 2003

Nongovernmental Cooperator/Permittee | **Date**

Bob Sittle — 11/26/03

Nongovernmental Cooperator/Permittee — **Date**

Jean M Smith — Dec 1 2003

Nongovernmental Cooperator
Private Landowner — **Date**

Kelly Riggs — 12-5-03

Nongovernmental Cooperator/Permittee — **Date**

Erick Connell — 11/28/03

Nongovernmental Cooperator/Permittee — **Date**

Scott R Nicholson — 12-5-03

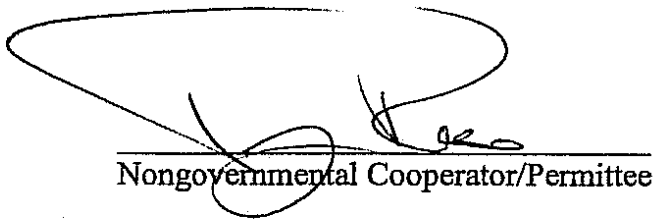
Nongovernmental Cooperator/Permittee — **Date**

Stephen Hogg — 12/5/03

Nongovernmental Cooperator/Permittee — **Date**

Tom Nicholson — 12-5-03

Nongovernmental Cooperator/Permittee — **Date**



Nongovernmental Cooperator/Permittee

12/5/03

Date

Nongovernmental Cooperator/Permittee

12-05-03

Date

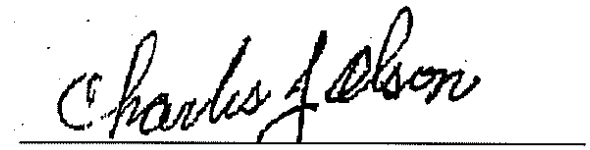
L. G. Davison & Sons, Inc.
R. E. Davison (Pres)

Nongovernmental Cooperator/Permittee

12-5-03

Date

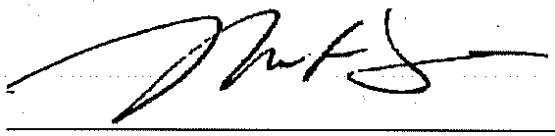
Private Landowner



Nongovernmental Cooperator/Permittee

12-3-03

Date



Nongovernmental Cooperator/Permittee

12/5/03

Date

Table 6. Other Research and Monitoring

Priority Unfunded Potential Future Slickspot Peppergrass Research							
Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
Habitat fragmentation/ Genetic diversity	H	Name: Genetic diversity/variability within and between LEPA element occurrences across the range of the species. Specific Description: Examine genetic diversity within and between LEPA EOs. Determine if small isolated LEPA EOs can contribute to gene flow of larger LEPA EOs, or if they are effectively genetically isolated. Determine genetic diversity of existing EOs. Establish level of gene flow occurring between and within EOs. Investigate the critical distance from other LEPA EOs that causes genetic diversity in an EO to decline. Determine if expression of the annual versus biennial life form is genetically determined. Methodology would include collection of 3 leaves per plant for enzyme electrophoresis. Justification: Determine how habitat fragmentation impacts genetic diversity of LEPA within and between element occurrences. Results may assist in identifying and/or prioritizing EOs and habitat for restoration in order to provide connectivity and gene flow between EOs. Conservation Measures Addressed: Fire and invasive nonnative plant species conservation measures, including fire rehabilitation and vegetation restoration.	R	3 years	BSU*, IARNG, BLM, USFS Intermountain Shrub Lab (Dr. Susan Meyer)	$30k/yr Total = $90k	Dr. Robertson has indicated high level of interest in this project.

Priority Unfunded Potential Future Slickspot Peppergrass Research							
Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
Nonnative plants and all ground disturb. threats	H	Name: Determine the relationship between ground disturbance and nonnative plants within slickspots. Specific Description: Examine whether ground disturbance affects the establishment of nonnative annuals within slickspot soils. Justification: The relationship between ground disturbance and nonnative annual plant establishment has been demonstrated in the scientific literature, although specific studies of slickspot soils have not been completed. Data collected during monitoring has shown increases in nonnative annuals within slickspots and SSE habitat, but no empirical studies specific to slickspots have been completed. Conservation Measures Addressed: Invasive nonnative plant species conservation measures including fire rehabilitation and vegetation restoration and all ground disturbance conservation measures, including fire, recreation, residential and commercial development and land exchanges, and livestock trampling.	R	2-10 years	USGS	$10k/yr Total = $20k- $100k	Dr. Cindy Salo Research linking ground disturbance and invasion of nonnative annuals currently exists, but has not been conducted to specifically examine slickspots.
All ground disturb. threats	H	Name: Develop methodology for assessing slickspot soil stability. Specific Description: Research use of a soil penetrometer (measures soil moisture content) or other method to quantify soil stability of slickspots within various soil moisture regimes. Justification: Currently, a method for detecting threshold slickspot soil stability associated with soil moisture regimes has not been determined. This information will be useful to determine recommended time periods to permit management activities that could potentially disturb slickspot soils in LEPA Conservation Measures Addressed: All ground disturbance conservation measures, including fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling habitat.	R	2-4 years	NRCS or ARS	$15k/yr Total = $30k - $60k	Alan Harkness or Stewart Hardegree

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Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
All threats	H	Name: Monitor potential effects of management practices on LEPA and LEPA habitat. Specific Description: Following collection of baseline information, monitor LEPA and its habitat to determine effectiveness of management practices implemented to conserve and/or recover LEPA and SSE habitats. Monitoring should examine habitat condition both in and outside of slickspots as well as above ground plant numbers, and should consider local precipitation levels. Analyze and report monitoring results to CA partners annually. Justification: Monitoring of impacts of management practices on LEPA will provide data for use in an adaptive management framework. Will result in modification of adverse management practices to minimize impacts to LEPA. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	annually	BLM	$10k/yr	
All threats	High	Name: Continue large scale inventory efforts for LEPA. Specific Description: Continue large scale inventory efforts (30,000 – 50,000+ acres per year) within LEPA habitat, (including the area between Saylor Creek and Juniper Butte); continue ongoing annual sagebrush habitat LEPA inventories in northern portion of OTA; initiate additional inventories of other areas (state, nongovernmental cooperators, etc.). Justification: Inventory efforts for LEPA are incomplete. Continuation of inventory efforts are helpful to determine status and trend of the species. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	Inven-tories	1-5 years	IDARNG, BLM	$12k/yr IDARNG; $35k/yr BLM (amount uncertain) Total = $47k - $188k	

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Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
All ground dist. Threats	High	Name: Documentation of ground disturbance impacts to LEPA and LEPA habitat. Specific Description: Document location and sources of high levels of ground disturbance in occupied LEPA habitat, emphasizing disturbance that breaks through to the slickspot underlying clay layer. Justification: Monitoring information will assist in making land management decisions regarding LEPA, especially during periods of high slickspot soil moisture. Conservation Measures Addressed: All ground disturbance conservation measures, including fire, recreation, residential and commercial development and land exchanges, and livestock trampling.	M	annually	BLM, ICDC, IDARNG, USAF, State, Private	Included as part of annual monitoring budget	
All threats	High	Name: Continue HII monitoring of LEPA occurrences. Specific Description: Continue annual HII data collection and data analyses, including addition of new HII plots to include all known EOs; permanently mark all sampled slickspots. Justification: HII monitoring is a useful tool to assess habitat conditions for LEPA and assist with assessment of status and trend of the species. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	annually	BLM ,USAF, IDARNG, State	$20k/yr	

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Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
All threats	High	Name: Update of LEPA HII monitoring methodology. Specific Description: Conduct overview of HII methodology to examine validity of current data parameters and potential addition of more categories for data collection such as depth of ground disturbance, percentage of area containing ground disturbance, and observations of wildlife/insect impacts. Request an independent peer review of the updated HII methodology. Justification: HII monitoring is a useful tool to assess habitat conditions for LEPA and assist with assessment of status and trend of the species. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	1 year	ICDC*, BLM,USAF, FWS, IDARNG, State	$6k	
All threats	High	Name: Update LEPA EO database. Specific Description: Re-evaluate current LEPA EOs and EO ranks for consistency in delineation of boundaries and classification. Assign EO ranks to currently unranked EOs. Develop a method for classification of EOs specific to LEPA and apply to all known EOs Justification: Re-evaluation of current LEPA EO delineation and classification will assist in conservation efforts of all agencies and partners. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	1 year	ICDC*, BLM, USAF, FWS, IDARNG, State	$6k	

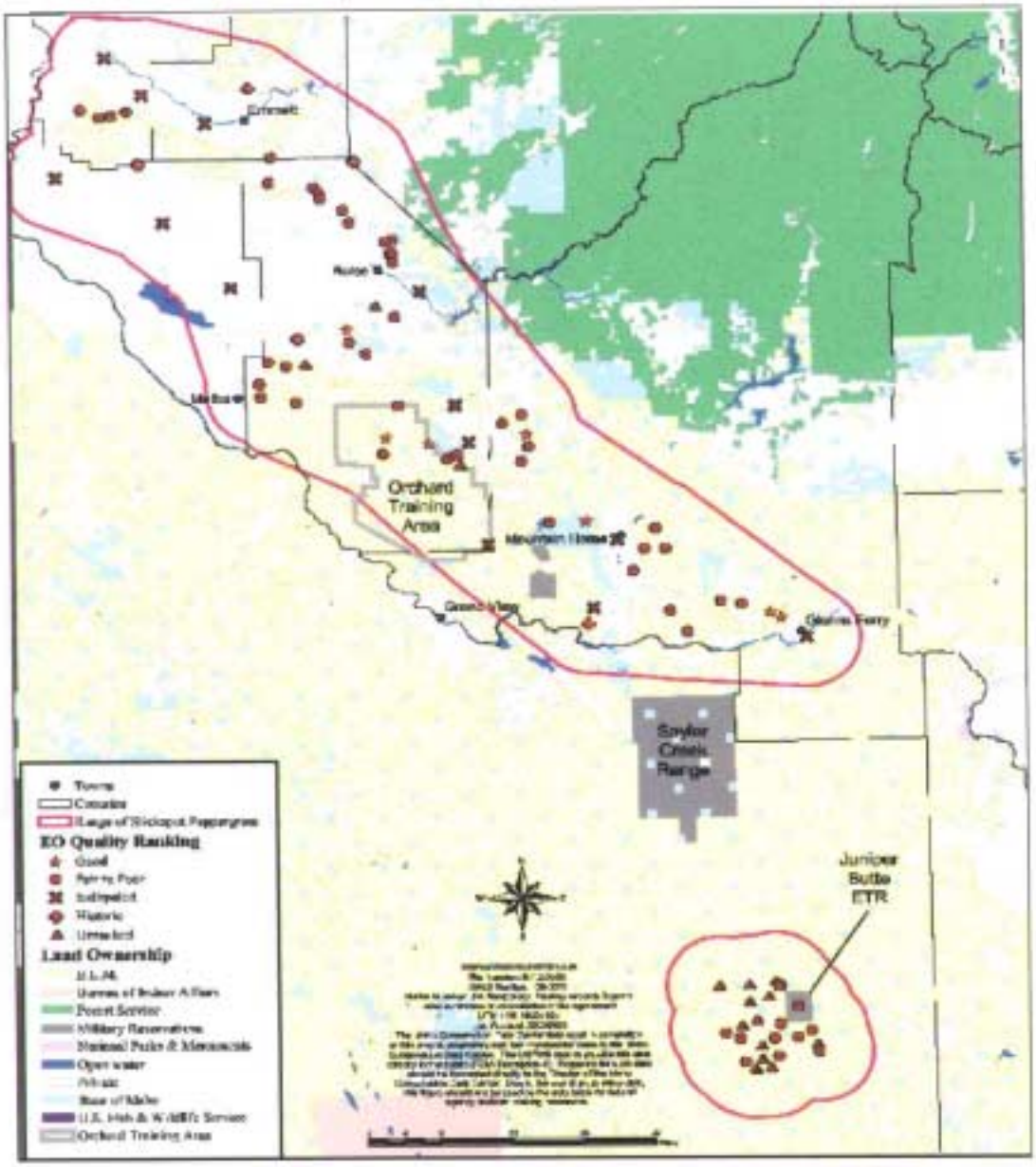
Priority Unfunded Potential Future Slickspot Peppergrass Research							
Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
All threats	High	Name: Data analysis / sharing of data reports. Specific Description: Results of all research and monitoring, including new techniques, should be shared by all partners in order to maximize benefits to LEPA and allow for changes in management, if needed, to be implemented in a timely manner. Justification: Researchers typically meet quarterly as part of the LEPA Interagency Technical Team, but CA partners (Steering Committee) should also meet at least annually for LEPA information sharing. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	annually	BLM, ICDC, IDARNG, USAF, USFWS, State, Private	$50/yr	
All threats	High	Name: Upgrade of Range Trend Plot Data Collection Factors Specific Description: Range reference areas may be used to monitor LEPA habitat and condition. Within range trend plots, record forbs by species, annuals, perennial grasses, ground disturbance level, and biological soil crust cover. Consider precipitation levels. Establish additional range trend plots that include vegetation diversity, species composition, biological soil crusts in addition to forage species information currently being collected; establish and monitor more range reference areas; establish plots so that LEPA sites with varying levels of disturbance (i.e., low, moderate, high) can be compared. Justification: Additional data can be collected at established range trend plots for use in determining SSE health by examining other species and levels of disturbance. SSE health is believed to be directly related to conservation of LEPA. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	Add to ongoing annual range trend plot data collection efforts	BLM, IDARNG	$50k/yr (BLM); $120k/yr (IDARNG)	

Priority Unfunded Potential Future Slickspot Peppergrass Research							
Threat	**Task Priority**	**Description of Task**	**Res. / Mon.**	**Estimated Task Duration**	**Potential Responsible Parties (* = potential lead)**	**Estimated Cost (Per year and Total)**	**Comments**
Military training	High	Name: Collection and analysis of Land Condition Trend Analysis trend plot data. Specific Description: Annually, collect and analyze data from permanent vegetation trend plots for continuing habitat evaluation and evaluation of effects of military training on LEPA and adjacent shrub-steppe habitat on Orchard Training Area. Justification: Use of ongoing trend plot monitoring data will assist in detecting changes in LEPA habitat condition for use in adaptive management of military training. Conservation Measures Addressed: Military training conservation measures.	M	ongoing	IDARNG*	$100k/yr	Data set began in 1989
All threats	High	Name: LEPA monitoring training Specific Description: Develop LEPA monitoring training session by spring 2004 for volunteers (see footnote below).[1] Justification: Training of all monitoring personnel will assure consistency in how monitoring data is collected and insure that results are comparable. Conservation Measures Addressed: Fire, recreation, invasive nonnative plant species, residential and commercial development and land exchanges, and livestock trampling conservation measures.	M	1 year (must offer training annually as need is identified)	BLM, USFWS, IDARNG, ICDC, USAF?	Depends on number of attendees	

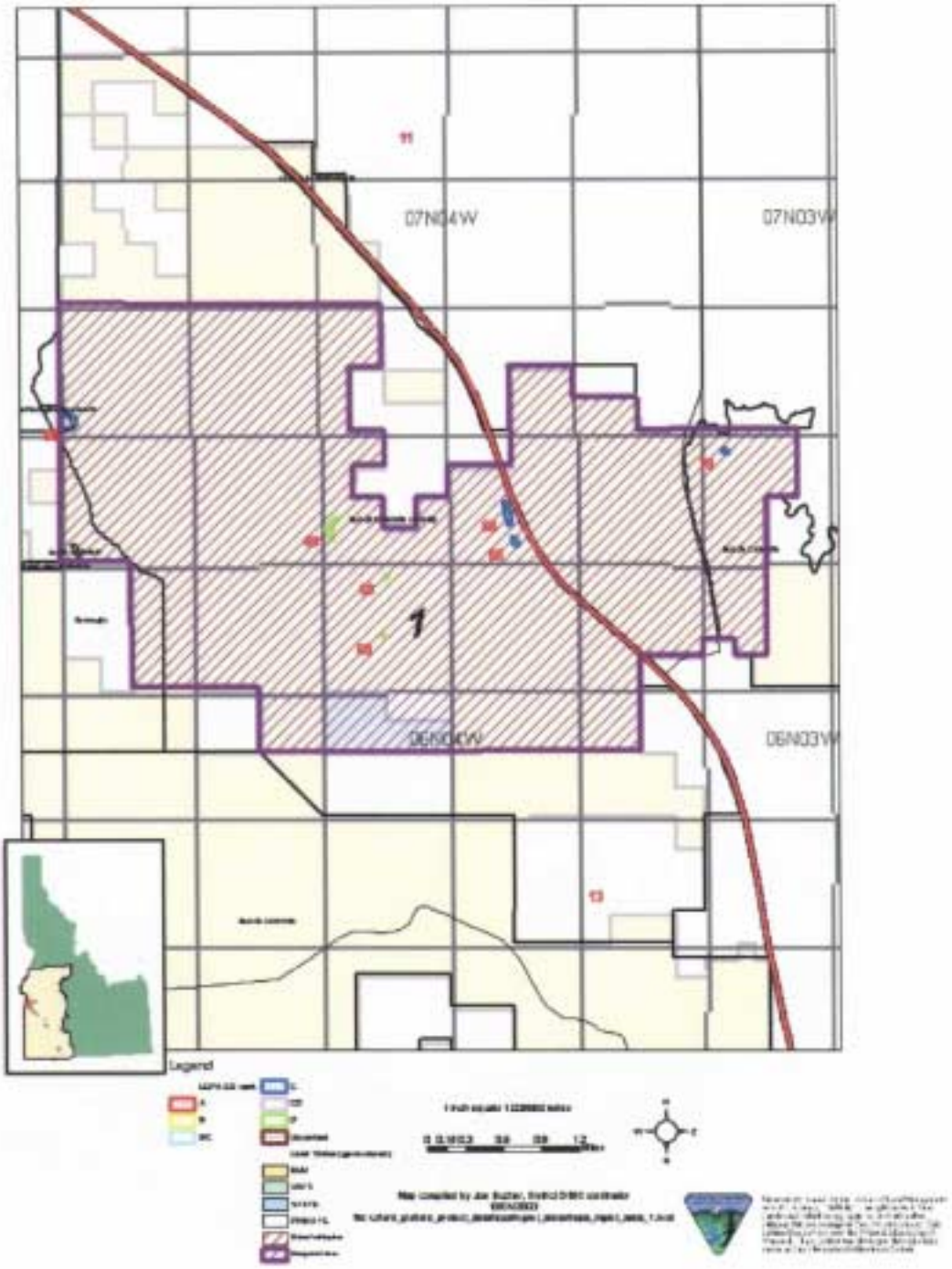
Note: The LEPA Technical Team identified a potential need for BLM to fund a full-time LEPA coordinator position.

[1] In order for volunteers to complete LEPA inventory or monitoring, training will be required. Volunteers can collect photopoint data on private or public land. Estimated cost for equipment $350/person. Training cost approx. $2000. Estimates of annual monitoring costs should include photo processing, film, and cost of data analysis and reporting. Monitoring should occur mid-May to mid-July.

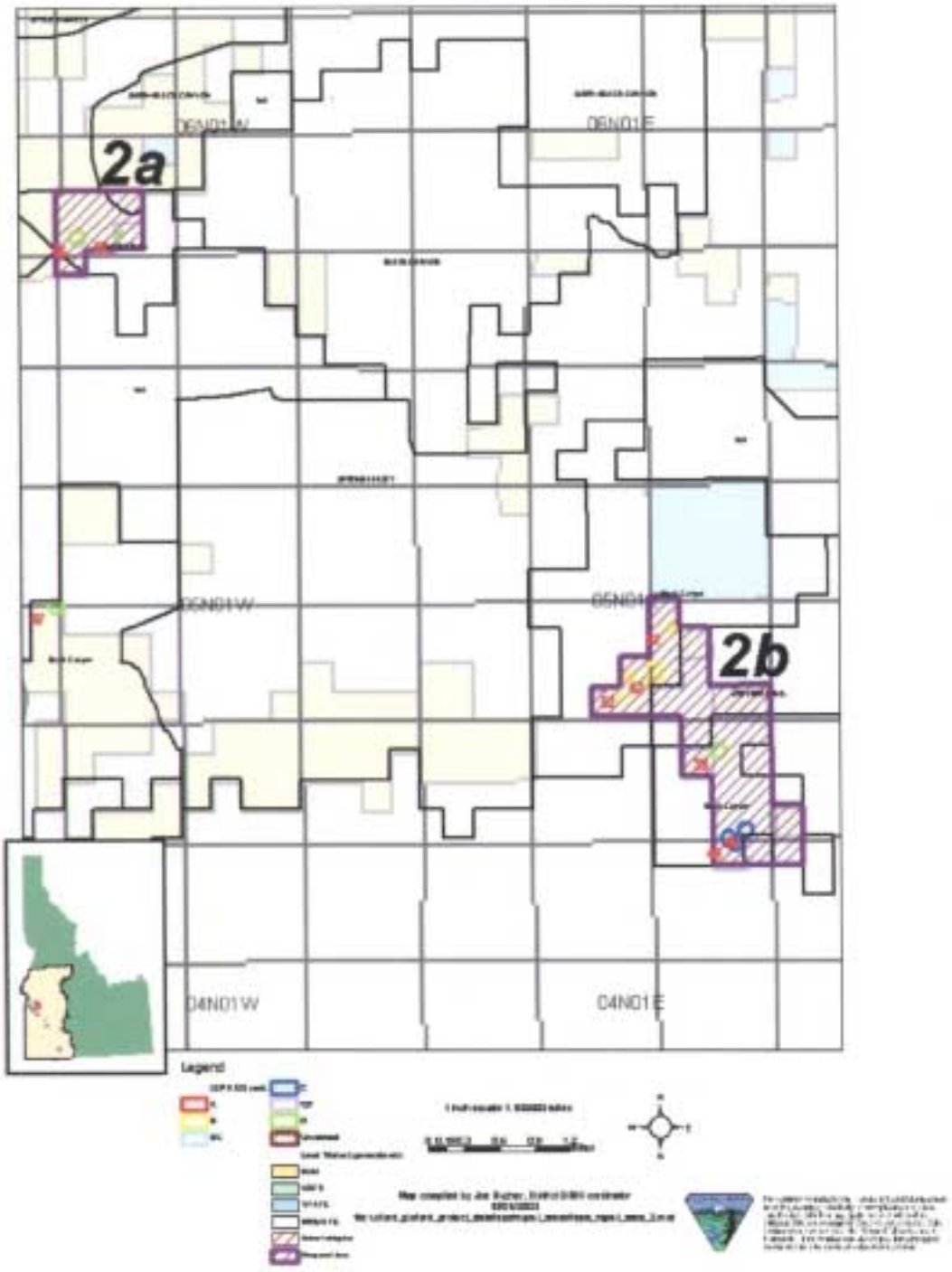
LEPA Consideration Zone



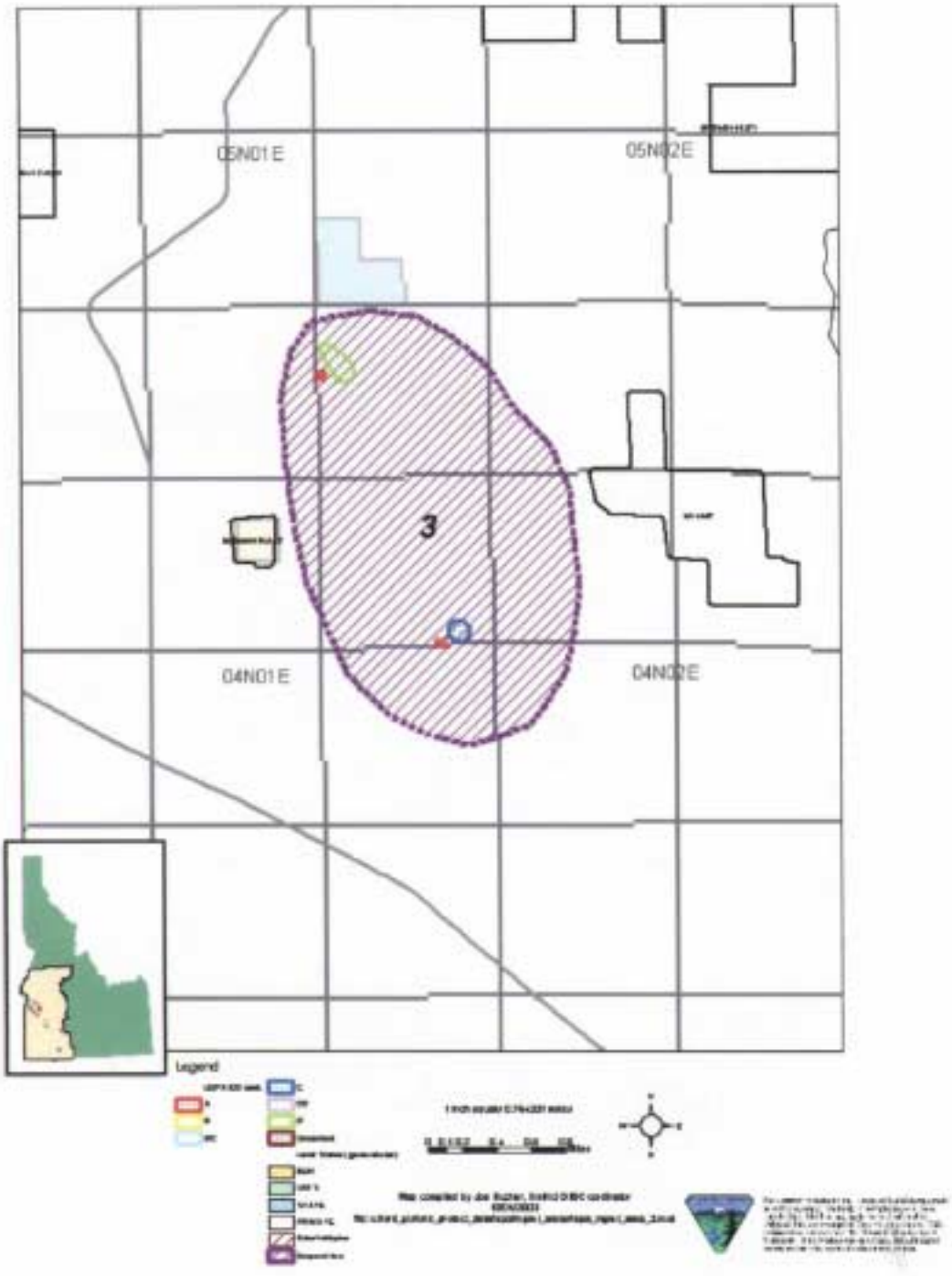
New Plymouth/Canyon County Management Area



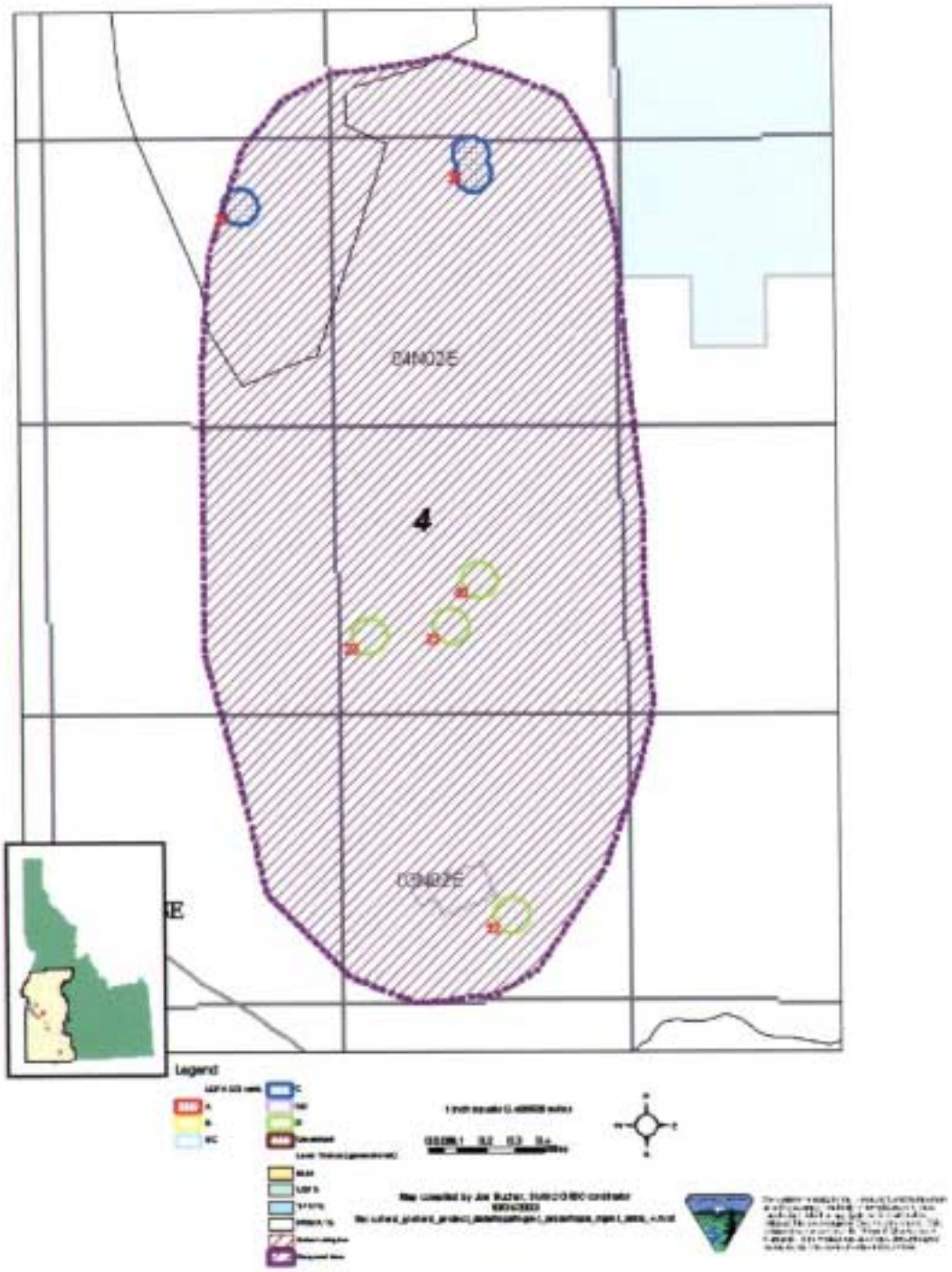
Boise Foothills/BLM
Management Areas



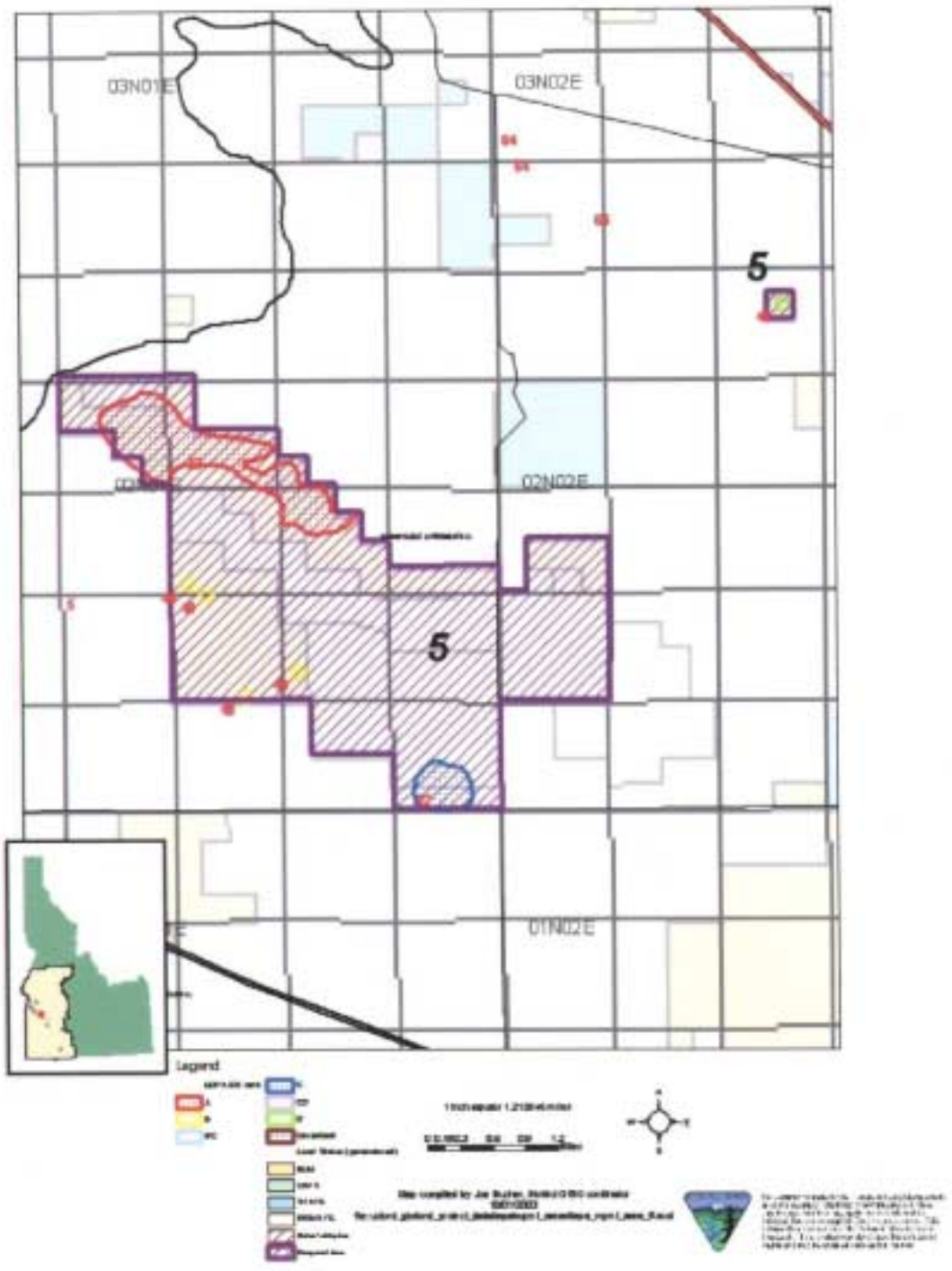
Boise Foothills/County Landfill Management Area



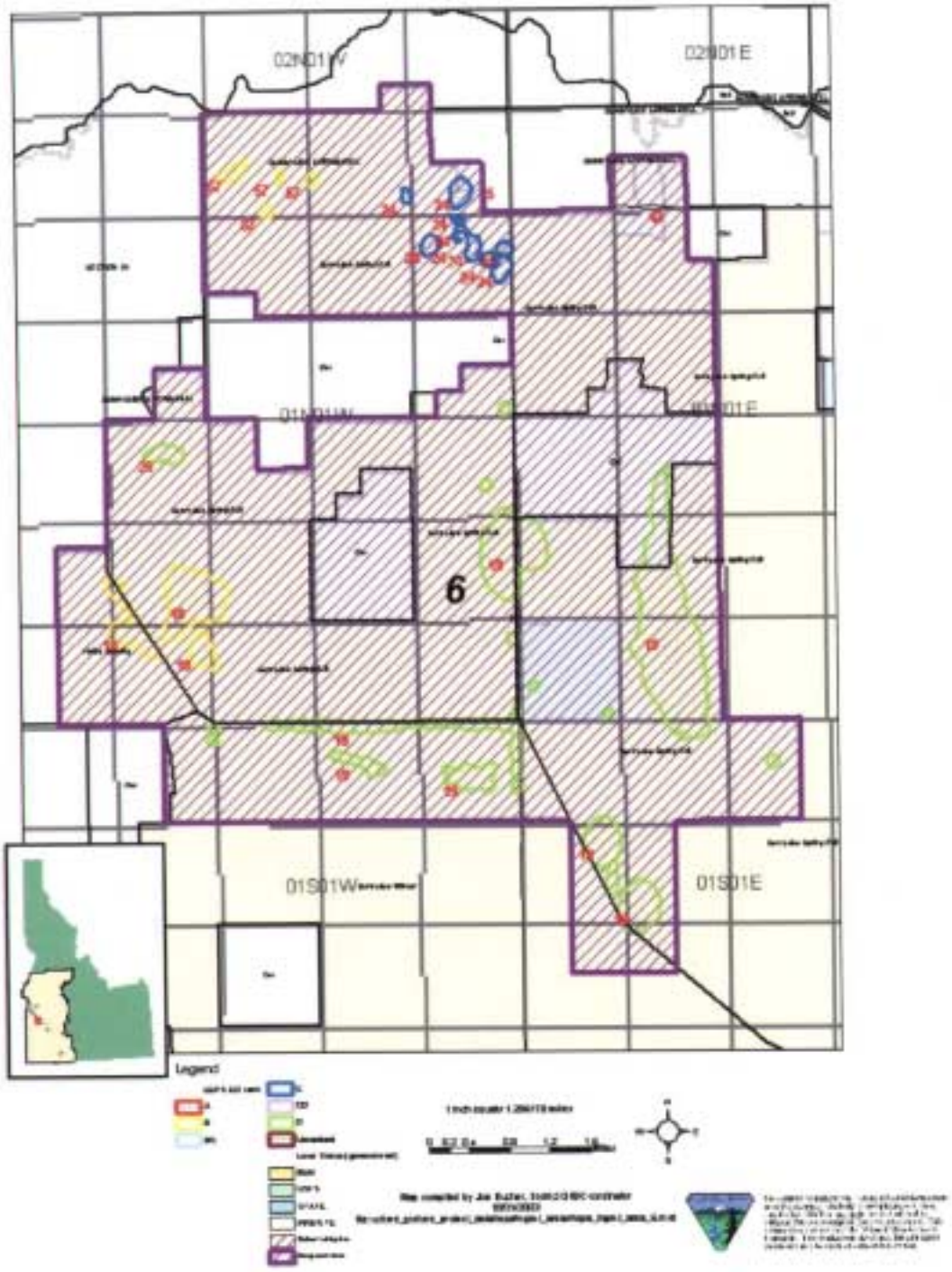
Boise Foothills/Private Management Area



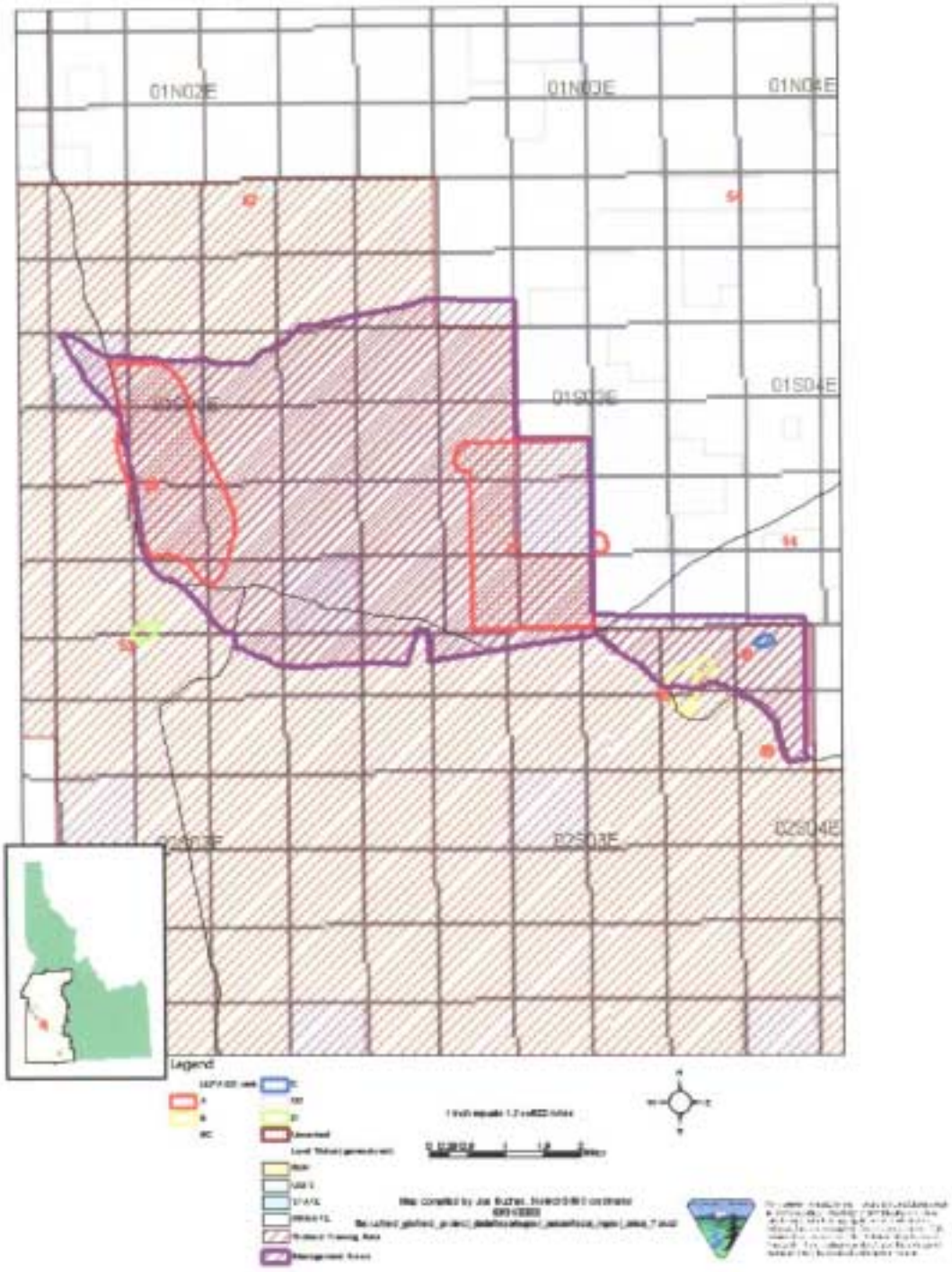
Boise
Management Area



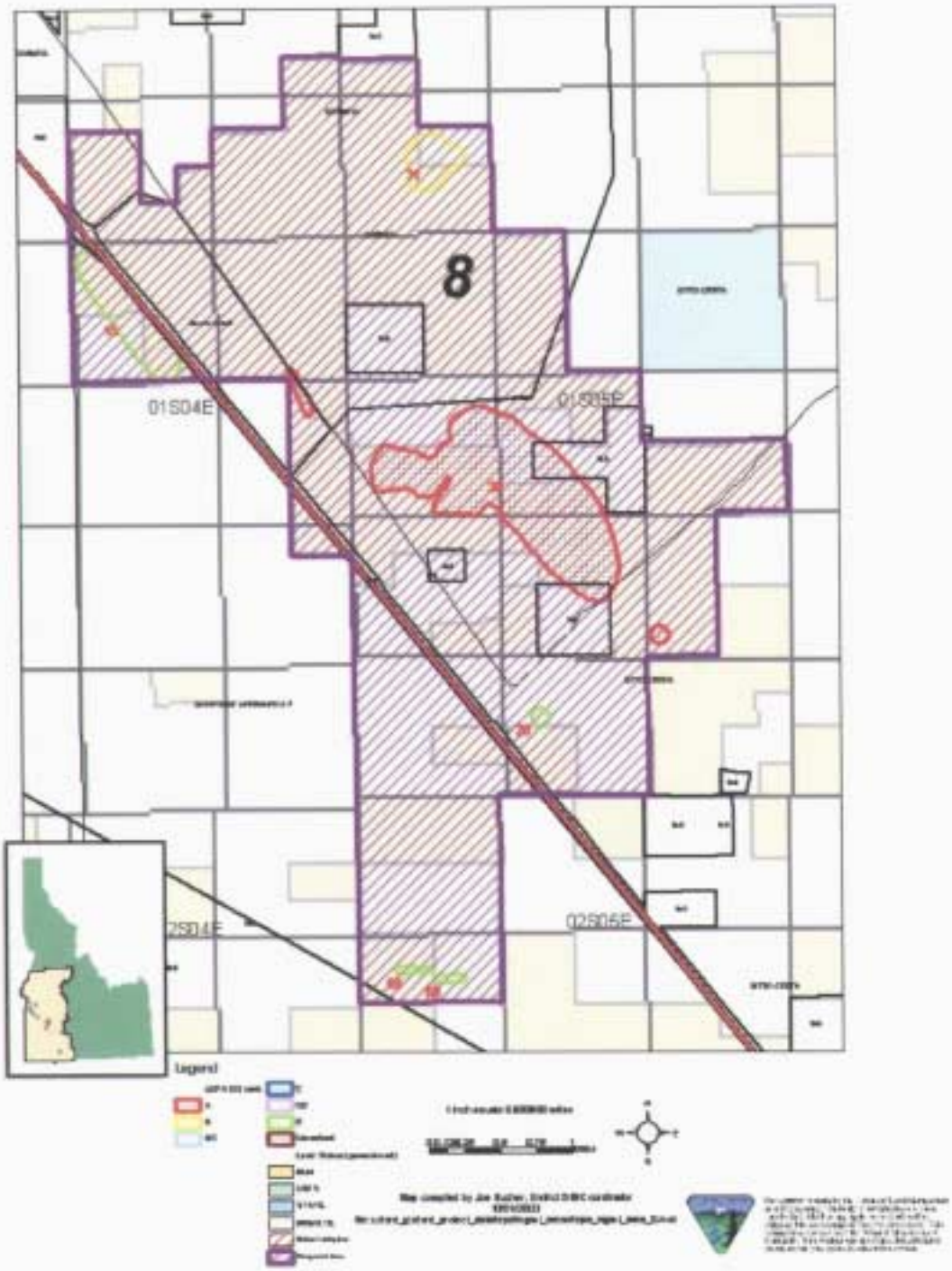
Kuna
Management Area



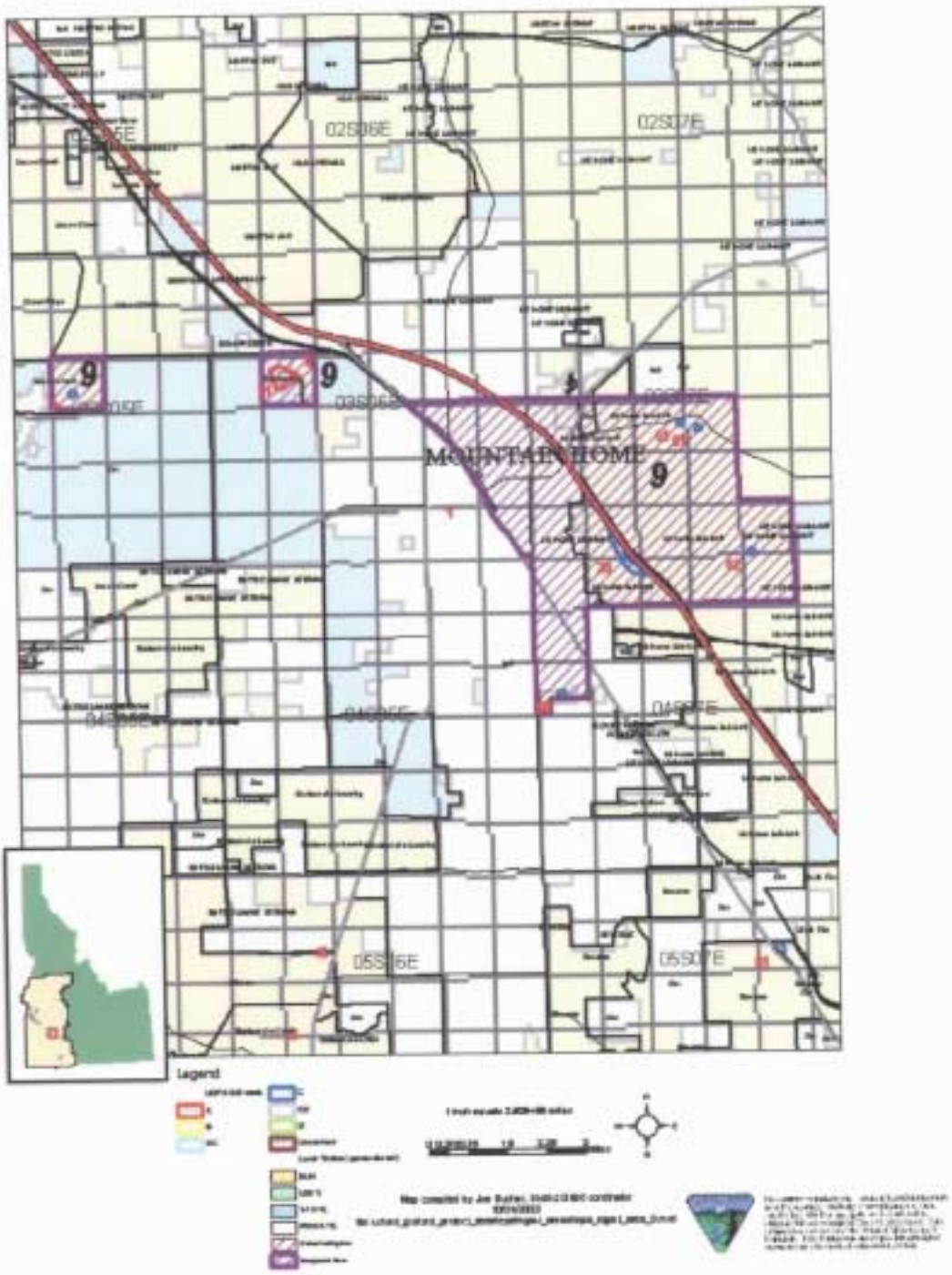
Orchard Training Range
Management Area



Orchard
Management Area



Mountain Home
Management Areas



Glenns Ferry/Hammett Management Area

Jarbidge
Management Areas